

Harley Dykstra[®]

SURVEYING | TOWN PLANNING | PROJECT MANAGEMENT

STRUCTURE PLAN

Lot A39 Lakes Road, North Dandalup



Prepared for
Valley Holdings WA Pty Ltd

December 2025



DOCUMENT CONTROL

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Valley Holdings WA Pty Ltd	12/12/2025

PREPARED BY	DATE
 Miranda Bowman Town Planner	12/12/2025

REVIEWED BY	DATE
 Henry Dykstra Planning Director	12/12/2025

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PROJECT TEAM

This Structure Plan has been formulated by Harley Dykstra in collaboration with a team of specialist consultants, who have provided the following technical input in relation to the following matters:

Structure Plan:	Harley Dykstra
Local Water Management Strategy:	Pentium Water
Traffic Impact Statement:	PTG Consulting
Bushfire Management Plan:	Western Environmental
Environmental Assessments:	Western Environmental
Engineering Infrastructure Report:	Tabec
Land Capability & Assessment:	Bayley Environmental Services
Foreshore Definition Study:	Bayley Environmental Services



RECORD OF ENDORSEMENT

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

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

..... Date

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

..... Date

..... Date of Expiry

EXECUTIVE SUMMARY

This Structure Plan has been prepared to fulfil the statutory obligations of the Planning and Development (Local Planning Schemes) Regulations 2015 and the Shire of Murray ('the Shire') Local Planning Scheme No. 4 ('LPS 4') for the subdivision and development of Lot A39 Lakes Road, North Dandalup ('the parent lot').

The parent lot exists as a freehold lot located approximately 4.3km west of the North Dandalup townsite and approximately 16km north of the Pinjarra town centre. The subject land is described as Lot A39 (No. 1818) Lakes Road, North Dandalup with a total site area of 196.5725ha. The purpose of this Structure Plan is to accommodate future subdivision and development of the subject land for rural-residential purposes, including the associated areas for public open space and drainage.

The Structure Plan is consistent with the established strategic planning framework for the area including the Western Australian Planning Commission's ('WAPC') South Metropolitan Peel Sub- Regional Planning Framework, and the Shire of Murray Nambeelup North Dandalup Local Rural Strategy.

The particulars of the Structure Plan are as follows:

ITEM	DATA	SECTION REFERENCED
Total area covered by structure plan	196.5725 hectares	Section 1.1 (Part One)
Area of each land use proposed:		
• Residential (Special Rural)	128.0827 hectares	Section 5.2
• Road Reserves	16.2357 hectares	Section 5.4
• Public Open Space/Drainage	2.1931 hectares	Section 5.1
• Foreshore Reserve	49.472 hectares	Section 5.1
Total estimated lot yield	120	Section 5.2
Estimated number of dwellings	120	Section 5.2
Estimated residential site density	0.8 dwellings per site hectare	Section 5.2
Estimated population	336	Section 5.2

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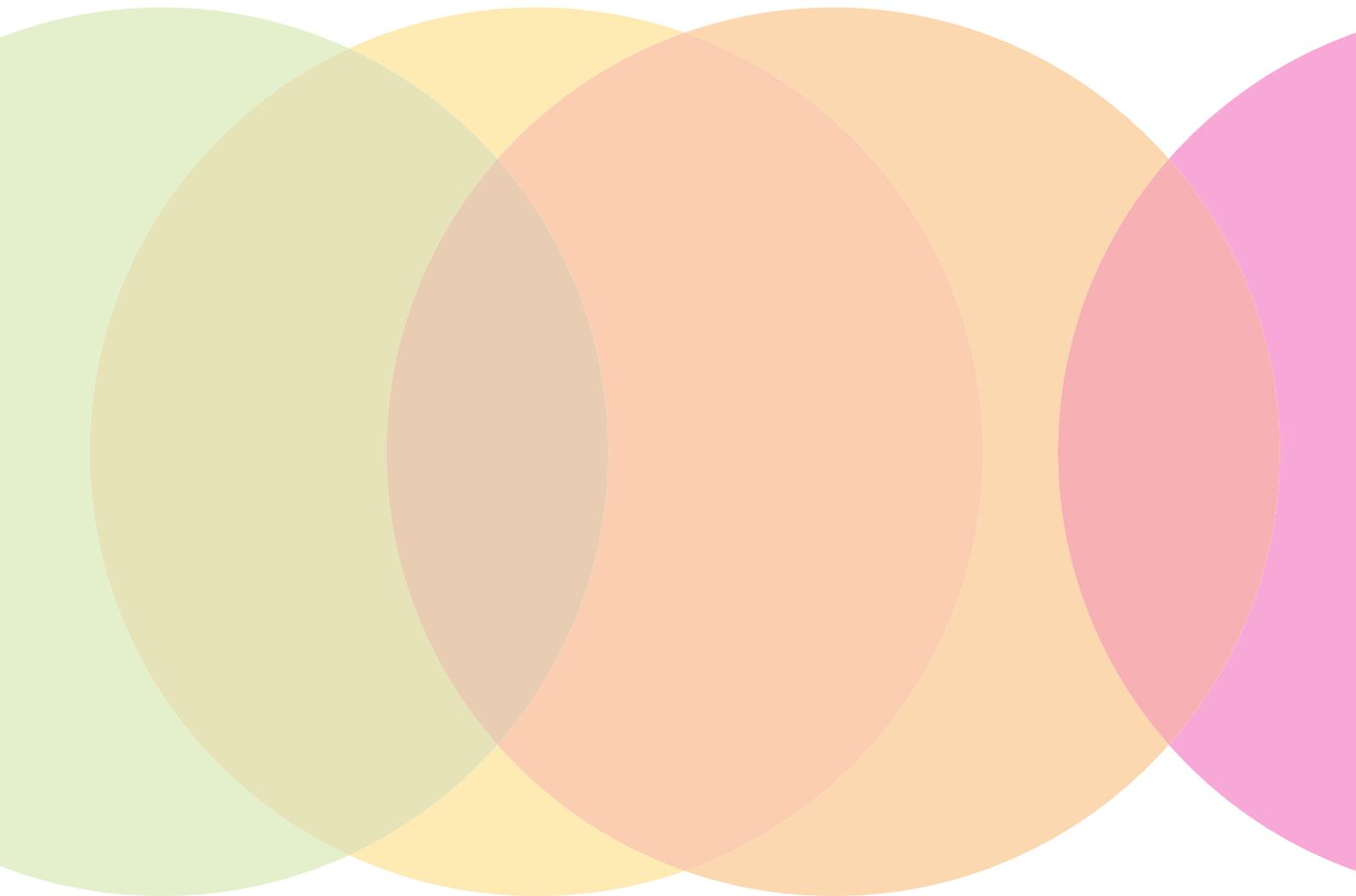


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PART ONE - IMPLEMENTATION





1 STRUCTURE PLAN AREA AND OPERATION

1.1. STRUCTURE PLAN AREA

This Structure Plan applies to Lot A39 Lakes Road, North Dandalup. The Structure Plan area is defined as the land contained within the inner edge of the line denoting the Structure Plan area on the Structure Plan Map ('Structure Plan Area'). Refer **Plan 1** – Structure Plan Map.

1.2. OPERATION

The operation of the Structure Plan shall be in accordance with the Shire of Murray Local Planning Scheme No. 4 (LPS 4) and the *Planning and Development (Local Planning Schemes) Regulations 2015* ('LPS Regulations').

This Structure Plan has effect for a period of ten (10) years commencing on the day on which the WAPC approves the plan, or another period determined by the WAPC. The approved Structure Plan is to be given due regard by decision-makers when making decisions on subdivision and development of land within the Structure Plan area.

Pursuant to clause 29 of the LPS Regulations, any amendment to this Structure Plan is to follow the procedures set out within Part 4 of the LPS Regulations for preparing a structure plan.

2 PURPOSE

The purpose of this Structure Plan is to facilitate development and subdivision of the site for rural residential purposes. The key objectives framing this structure plan are:

- To achieve cohesive integrated rural residential development consistent with the existing estates to the north, east and south.
- To designate the area to be contained within the proposed foreshore reserve and multiple-use corridor.
- To ensure that development is supported by appropriate infrastructure including but not limited to infrastructure associated with drainage and groundwater management.

3 STAGING

The development staging shall follow an orderly sequence and provide a manageable level of service of essential infrastructure for roads, drainage and utilities.

The Structure Plan is likely to be developed in stages according to the extension of servicing infrastructure from the north and east, funding availability and market demand. Servicing will be extended with each of the individual stages of development.



4 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

4.1. LAND USE ZONES AND RESERVES

Plan 1 designates proposed land use zones and reserves in the Structure Plan area.

Zones/Precincts

Plan 1 designates 'Special Rural' zoning across the Structure Plan area. Land use permissibility shall be in accordance with the 'Special Rural' zone or reserve under the Shire of Murray Local Planning Scheme No. 4 (LPS 4).

Road Reserves

The road reserve widths of the proposed internal road network are consistent with the surrounding road network. The road widths are shown on the Concept Subdivision Plan and detailed in the Traffic Impact Assessment included as part of this Structure Plan.

An area of road reserve is set aside for the future widening of Lakes Road in accordance with Shire of Murray requirements.

Other Reserves

In addition to the proposed residential areas, a significant area of Foreshore Reserve is proposed to accommodate the North Dandalup River and surrounding native vegetation, which occupies the central spine running south-west across the land. This area is able to suitably capture a considerable portion of the remnant vegetation on site and will protect the environmental values contained within in perpetuity.

It is expected that the proposed area of Foreshore Reserve will be ceded to the Shire of Murray as a public reserve as part of the future subdivision of the land.

4.2. DENSITY & DEVELOPMENT

Plan 1 designates the R-Codes applicable to subdivision and development in the Structure Plan area.

Density and R Codes

Residential densities applicable to the Structure Plan area are consistent with the 'Special Rural' codings, as shown on the Structure Plan map.

It is anticipated the Structure Plan Area will accommodate approximately 120 dwellings with an average size of 1-2 hectares (ha):

Interface with Adjoining Areas

The Structure Plan area will integrate seamlessly with the surrounding rural-residential areas with roads linking to the network of the estate to the east. Additionally, future road connections are provided for as-yet undeveloped rural-residential land to the south-east and to land earmarked for 'Urban Investigation' to the west. Careful consideration of the access points from Lakes Road to the north and Shanns Road



to the south have ensured there will be no conflict with adjoining estates nor adverse traffic impacts.

Heritage

Aboriginal Registered Site Dandalup River (ID 27937) is associated with the North Dandalup River, its mythological narratives of the Waugal and its importance as water resource and hunting place. To protect this area of cultural significance, the entirety of the site is proposed to be captured within a foreshore reserve and significantly separated from any areas of development. This will aid in the restoration of the site, which has been severely degraded since the inception of European occupation on the land.

4.3. OTHER REQUIREMENTS

Bushfire Protection

This Structure Plan is supported by a Bushfire Management Plan, which has been prepared in accordance with State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP 3.7).

Any development on the land within the Structure Plan will be constructed in accordance with the recommendations contained within the Bushfire Management Plan and shall comply with the requirements of Australian Standard 3959 (AS 3959) Construction of Buildings in Bushfire Prone Areas.

At subdivision stage, bushfire considerations will be reviewed further, and the need for a site specific Bushfire Management Plan, where required, may be applicable.

Infrastructure Arrangements

All proposed lots will be connected to reticulated water, power and will be connected to a comprehensive drainage system in accordance with the Local Government and Service Agency requirements. As the site is unsewered, on-site effluent disposal systems will be required and the land has been assessed for its suitability to accommodate these systems as part of the Land Capability Assessment included as part of this Structure Plan.

All proposed lots will be serviced by the internal subdivision roads. The Traffic Impact Assessment included as part of this Structure Plan details the capability of existing and proposed roads.

Protection or Management of Environmental or Landscape Features

An Environmental Assessment Report (EAR) has been prepared for the Structure Plan area to assess the existing environmental values and any potential constraints to future development. The EAR is supported by a Flora and Fauna Assessment and other biological surveys undertaken across the site. A black cockatoo habitat assessment was included as part of these surveys.

Water Resource Management

A Local Water Management Strategy (LWMS) has been prepared for the land to establish the general design measures for flood mitigation and stormwater management for the Structure Plan area, and will guide the development of an Urban Water Management Plan (UWMP) which is to be prepared at the subdivision stage.



5 ADDITIONAL DETAILS

Upon Structure Plan approval, this document will form part of the local statutory framework to guide subdivision and development within the immediate site area.

To support development at the subdivision stage, further detailed investigations will be required. The details of information required is contained within **Table 1** below:

ADDITIONAL INFORMATION/ PURPOSE	APPROVAL STAGE	CONSULTATION REQUIRED
Site & Soil Evaluation	Subdivision Application	Shire of Murray/Department of Health
Bushfire Management Plan	Subdivision Application	Shire of Murray/Department of Fire and Emergency Services

TABLE 1. Information to be submitted with an Application

The onus of responsibility sits with the landowner and/or developer at the relevant stage of development.

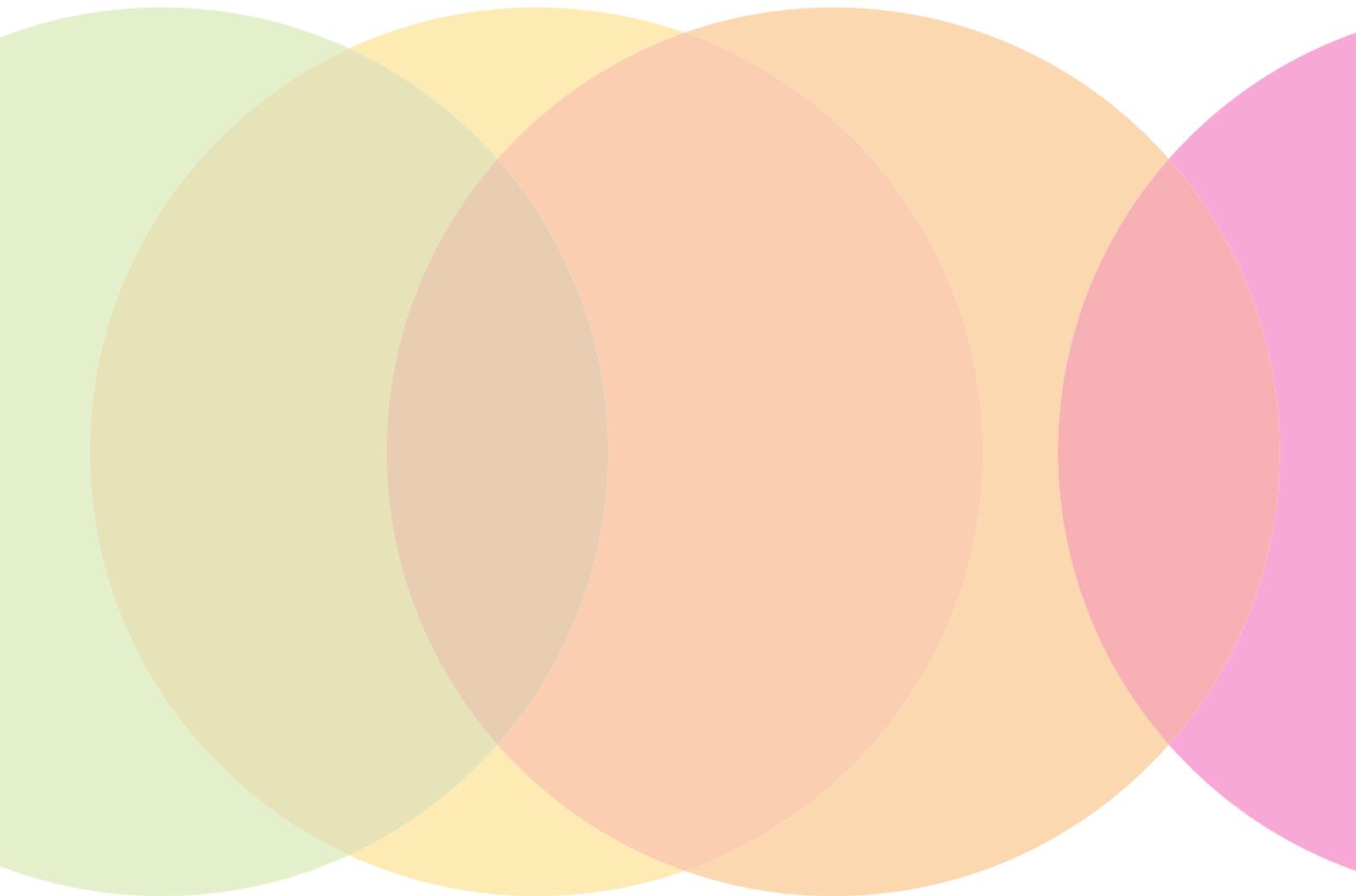
As the development progresses it may be necessary to vary aspects of the Structure Plan and as such the plan is intended to be adaptable subject to suitable justification. Modifications to the adopted Structure Plan are to be undertaken in accordance with Schedule 2, Clause 29 of the Planning and Development (Local Planning Schemes) Regulations (2015).

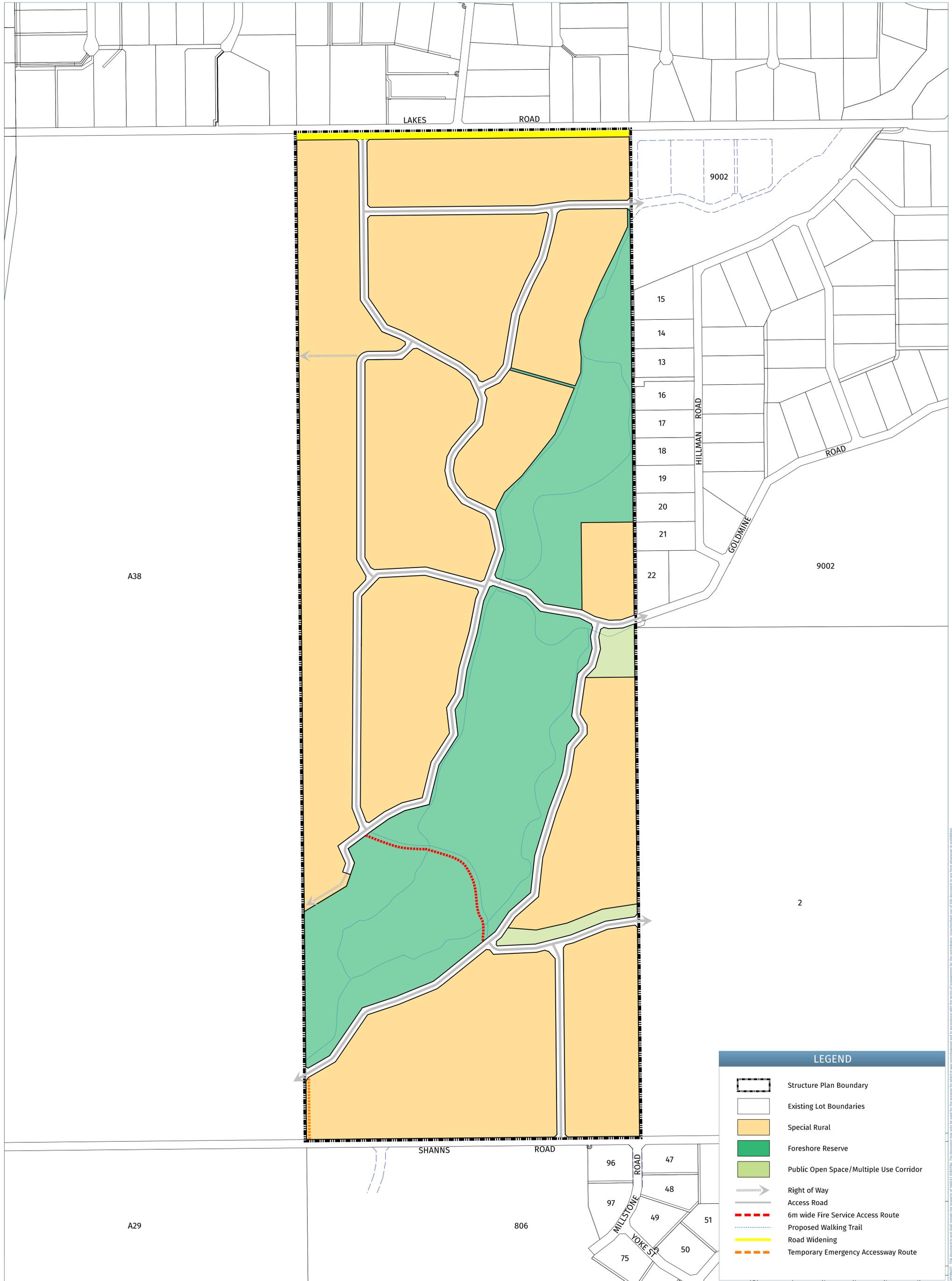
The studies and or plans contained within **Table 2** are required as conditions on the subdivision and or development approval applications.

CONDITION OF SUBDIVISION APPROVAL	RESPONSIBLE AGENCY
Urban Water Management Plan	Shire of Murray
Foreshore Management Plan	Shire of Murray
Environmental Management Plan	Shire of Murray

TABLE 2. Information Required as a Condition of Approval

PLAN 1 - STRUCTURE PLAN MAP





LEGEND

- Structure Plan Boundary
- Existing Lot Boundaries
- Special Rural
- Foreshore Reserve
- Public Open Space/Multiple Use Corridor
- Right of Way
- Access Road
- 6m wide Fire Service Access Route
- Proposed Walking Trail
- Road Widening
- Temporary Emergency Accessway Route

STRUCTURE PLAN

Lot A39 (No. 1818) Lakes Road, NORTH DANDALUP

Date: 8/12/25
 Drawn: TJ
 Checked: MB
 Base Data: Landgate Oct 25
 Projection: MGA2020 Z50

Plan No: 24507-07 Rev: B

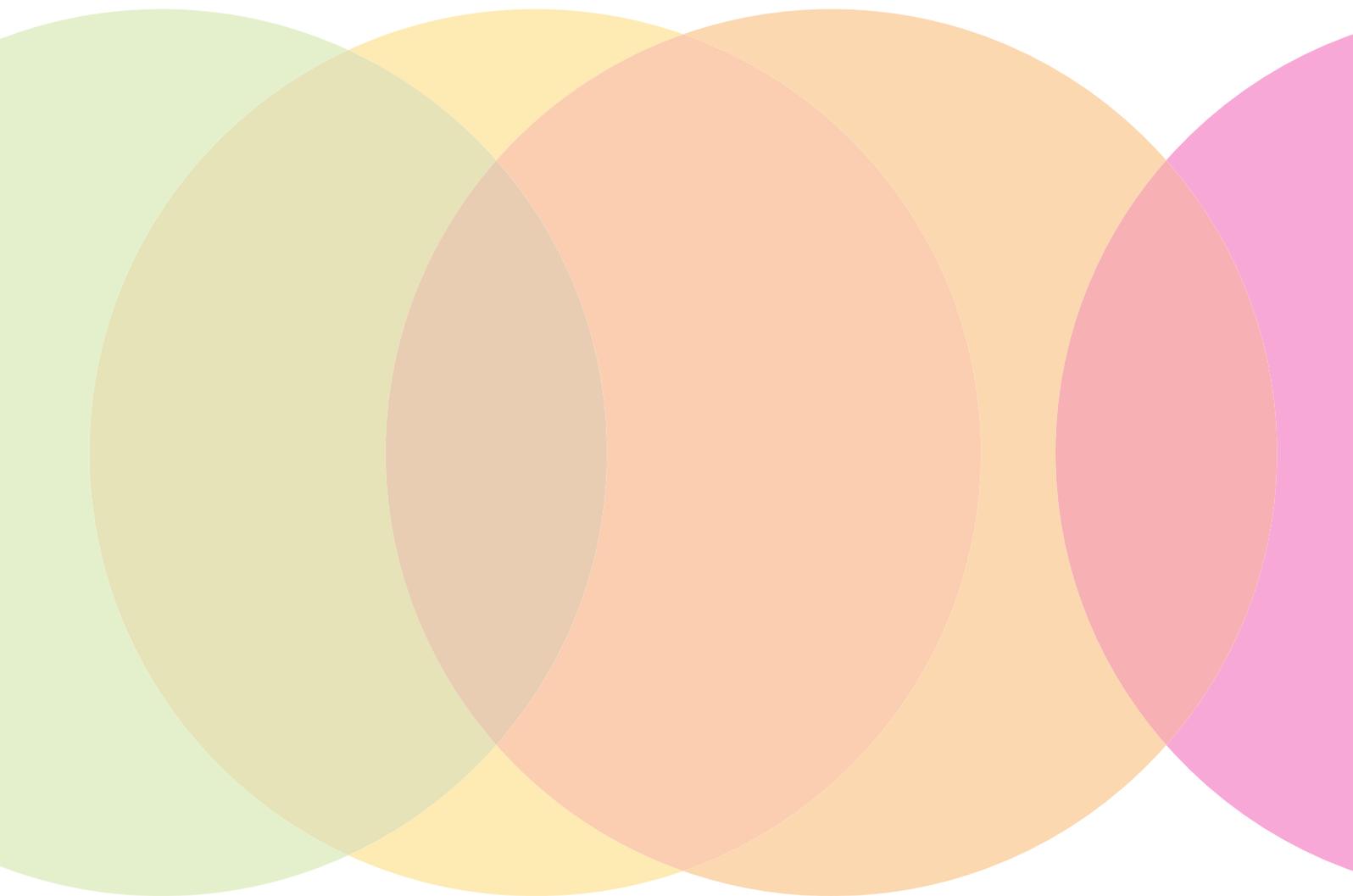
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Harley Dykstra
 SURVEYING | TOWN PLANNING | PROJECT MANAGEMENT

PERTH - PEEL SOUTH WEST GREAT SOUTHERN
 9425 1947 9324 6000 9344 5100
 info@harleydykstra.com.au www.harleydykstra.com.au

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PART TWO - EXPLANATORY SECTION





1 INTRODUCTION & PURPOSE

This Structure Plan has been prepared by Harley Dykstra on behalf of the landowner, for Lot A39 (No. 1818) Lakes Road, North Dandalup ('subject land').

The Structure Plan has been prepared in accordance with the *Planning and Development (Local Planning Schemes) Regulations 2015*, the Western Australian Planning Commission's (WAPC) *WA Planning Manual Guidance for Structure Plans*, and the WAPC's *Liveable Neighbourhoods* operational policy. The Structure Plan will ultimately satisfy the requirements of the Shire of Murray Local Planning Scheme No. 4 (LPS 4).

The Structure Plan will facilitate and guide the future subdivision and development of the land, primarily for rural-residential purposes. The Structure Plan will be given due regard by relevant determining authorities in their consideration and assessment of subdivision and development applications.

1.1 OBJECTIVES

The Structure Plan provides a framework for subsequent planning stages to facilitate the development of a rural-residential neighbourhood of approximately 120 lots.

The objectives of the Structure Plan are to:

- a) To achieve cohesive integrated rural residential development consistent with the existing estates to the north, east and south.
- b) To designate the area to be contained within the proposed foreshore reserve and multiple-use corridor.
- c) To ensure that development is supported by appropriate infrastructure including but not limited to infrastructure associated with drainage and groundwater management.





2 SITE AND CONTEXT ANALYSIS

2.1. PHYSICAL CONTEXT

2.1.1. Location

The subject land is described as Lot A39 (No. 1818) Lakes Road, North Dandalup with a total site area of 196.5725ha. The site is located approximately 4.3km west of the North Dandalup townsite and approximately 16km north of the Pinjarra town centre.

2.1.2. Surrounding Land Use

The surrounding properties consist of rural residential zoned land to the north, east and south and rural zoned land to the west in accordance with LPS 4. As surrounding areas have been well established through the planning process, including the extension of existing servicing infrastructure and road networks, the development of the subject land will connect and integrate seamlessly with the existing network and character of the area while maintaining a consolidated rural-living estate that is able to appropriately manage its own drainage and servicing requirements.

2.1.3. Land Ownership

The details of the subject land are identified as follows in **Table 3**:

LOT NO.	PLAN NO.	VOLUME/FOLIO	LOT AREA	REGISTERED PROPRIETOR
A39	738	1026/538	196.5725 ha	Maureen Maud Jewell Alexander Bruce Campbell Alexander Richard Crossing Joanne Melinda Hartley

TABLE 3. Legal Description

2.1.4. Topography

The topography of the site slopes predominately east to west from a height of approximately 26m Australian Height Datum (AHD) along the eastern boundary to 20m (AHD) at the western boundary (with a low point of 18m (AHD) within the North Dandalup river bed).

2.1.5. Existing Buildings & Structures

The subject land contains an existing dwelling located at the north-eastern corner of the land, with the remaining area consisting of grazing pastures interspersed with pockets of vegetation, which are particularly dense across the southern portion of the site. The North Dandalup river crosses the extent of the site from the north-eastern boundary to the southwestern boundary and includes significant vegetation along its fringes.

A location plain is provided within **Figure 1**, and a detailed aerial image of the site and surrounds depicted in **Figure 2**.

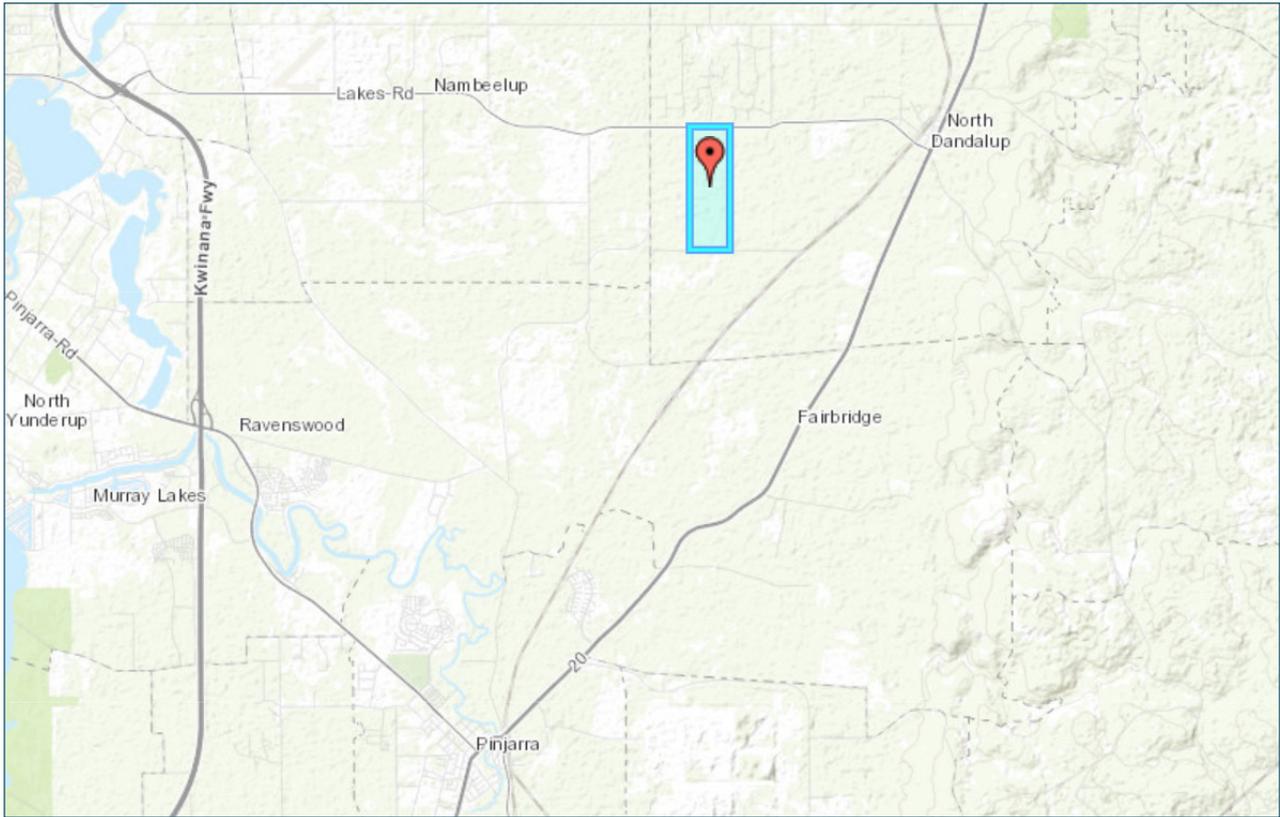


FIGURE 1. Location Plan



FIGURE 2. Aerial Photograph



2.2. PLANNING & GOVERNANCE CONTEXT

The following sections outline the designations under the relevant state and local planning frameworks.

2.2.1. Peel Region Scheme (PRS)

The subject land is primarily zoned ‘Rural’ under the Peel Region Scheme (PRS) and adjoins other properties also zoned ‘Rural’. The purpose of the ‘Rural’ zone under the provisions of the PRS is defined as “Land in which a range of agricultural, extractive and conservation uses are undertaken”. The Structure Plan will allow for the creation of significant conservation areas along the North Dandalup river while facilitating the development of the surrounding land for the pursuit of rural living lifestyles.

2.2.2. Perth and Peel @ 3.5 Million

The Perth and Peel @ 3.5 Million suite of documents provides a framework for the development of the Perth and Peel region to accommodate an estimated population of 3.5 million by 2050. The documents include four sub-regional planning frameworks for the Central, North-West, North-East and South Metropolitan Peel sub-regions. The subject land is located within the South-Metropolitan Peel Sub-Regional Planning Framework.

2.2.3. South-Metropolitan Peel Sub-Regional Framework 2018

The South-Metropolitan Peel Sub-Regional Planning Framework provides the strategic direction for managing growth and development within Perth’s southern corridor. The Frameworks and associated mapping spatially identify consolidated urban areas to accommodate population growth as well as locations for strategic employment land up until 2050. As depicted at **Figure 3**, the subject site has been identified as ‘Rural Residential’.

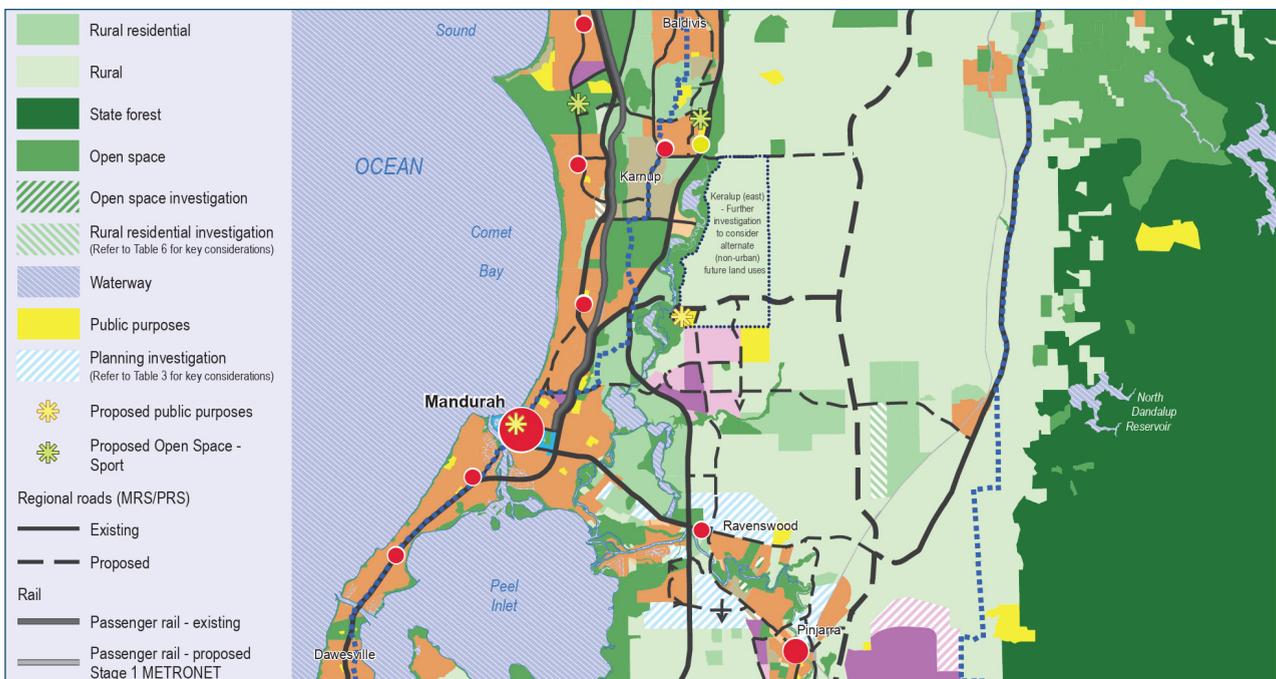


FIGURE 3. Sub-regional Framework Map



2.2.4. *State Planning Policy 2.1 – Peel-Harvey Coastal Plain Catchment*

The subject site is located within the Peel-Harvey catchment area which sets the following relevant policy provisions for this application:

- Proponents shall ensure that proposed changes to land zonings take account of land capability/suitability criteria with regard to the net effect that such changes are likely to have on the nutrient load discharging from that catchment into the Peel-Harvey Estuarine System.
- Subdivision proposals shall make provision for a drainage system, which maximises the consumption and retention of drainage on site. Biological wetland filters, or other means of drainage water retention or treatment approved by the EPA, will need to be incorporated into the drainage design possibly by amendment of the soils in drainage basins or by the provision of wetland filters with nutrient retentive soil amendments.

As outlined above, various technical investigations and reports have been provided in support of this Structure Plan to demonstrate the capability and suitability of the subject land to accommodate rural-residential sized development. In particular, a Local Water Management Strategy, Foreshore Definition Study, Land Capability Assessment and Engineering Servicing Report have provided clear advice and recommendations to ensure that groundwater, stormwater flows and drainage management can all be appropriately managed on site.

2.2.5. *State Planning Policy 3 – Urban Growth and Settlement*

State Planning Policy 3 – Urban Growth and Settlement (SPP 3) sets out the principles and considerations which apply to planning for urban growth and settlement within Western Australia. The relevant objectives of the policy are outlined as follows:

- To promote a sustainable and well-planned pattern of settlement across the State, with sufficient and suitable land to provide for a wide variety of housing, employment, recreation facilities and open space.
- To build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities.
- To coordinate new development with the efficient, economic and timely provision of infrastructure and services.

The proposed Structure Plan will facilitate the continuation of a well-planned pattern of rural residential settlements in accordance with the recommendations of the Peel Regional Framework for the North Dandalup area. It will also provide a key link between existing infrastructure services to the north and south and allow for the continued expansion to the west if that avenue is pursued in the future. Finally, the provision of a sizeable foreshore reserve and regional open space surrounding the North Dandalup river will enhance the quality of life for existing and future residents and rural-residential communities.

2.2.6. *State Planning Policy 3.7 – Planning for Bushfire*

State Planning Policy 3.7 (SPP 3.7) seeks to guide the implementation of effective risk based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. SPP 3.7 applies to strategic planning proposals, including structure plans, over land



designated as bushfire prone by the Department of Fire and Emergency Services. Given that parts of the subject land are designated as Bushfire Prone, as demonstrated in **Figure 4** below, SPP 3.7 is applicable to the subject site. The requirements of SPP 3.7 have therefore been addressed by a Bushfire Management Plan prepared in support of this Structure Plan.

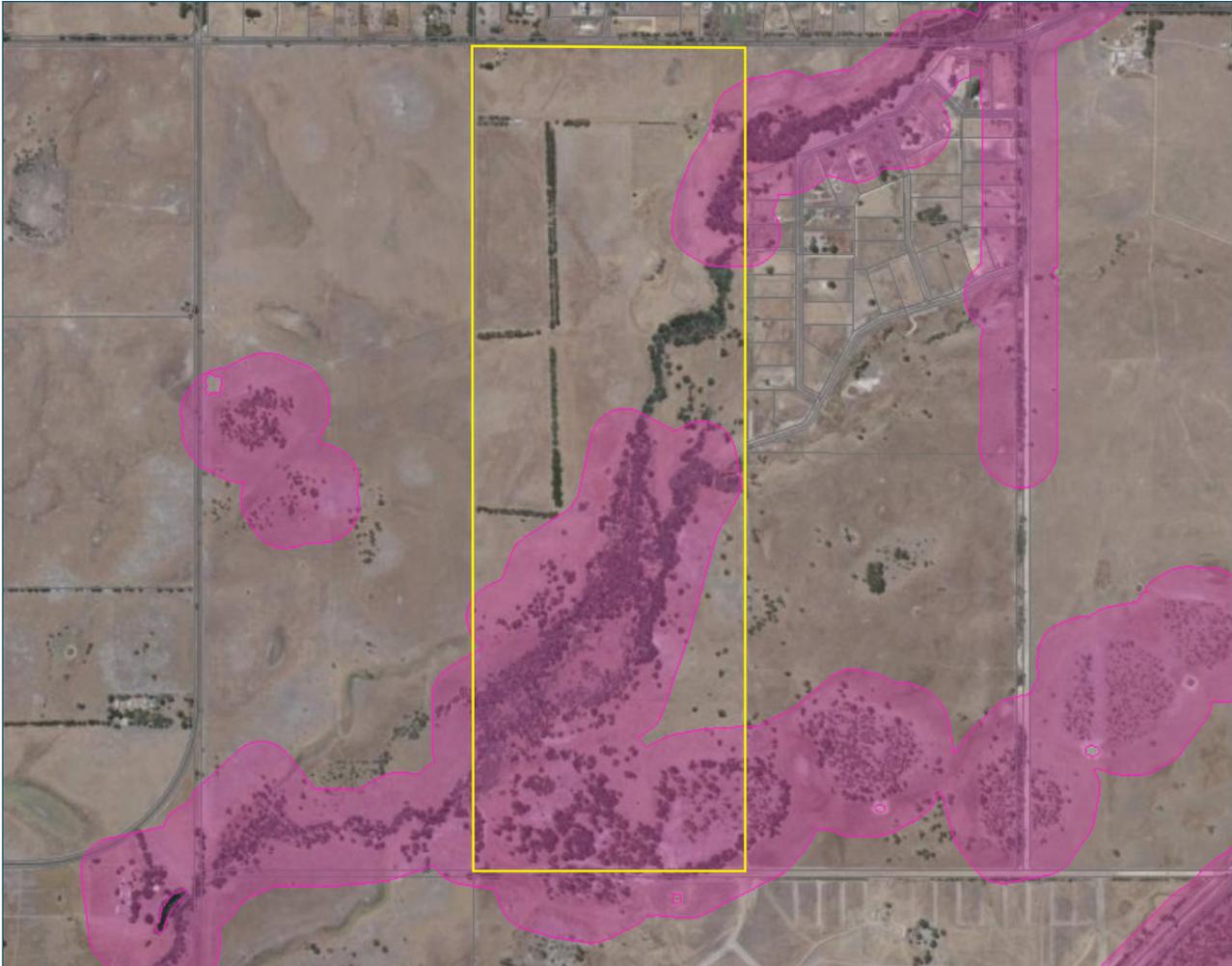


FIGURE 4. Bushfire Prone Areas

2.2.7. State Planning Policy 5.4 – Road and Rail Noise

State Planning Policy 5.4 – Road and Rail Noise seeks to minimise the adverse impact of road and rail noise on noise-sensitive land use and/or development. In accordance with Table 1: Transport Corridor classification and trigger distances, Lakes Road is considered a strategic freight or major traffic route and therefore the provisions of SPP 5.4 apply. The significance of SPP 5.4 has therefore helped to inform the Concept Subdivision Plan included at **Plan 2**, which includes rectangular shaped lots that would be able to locate future dwellings at an acceptable distance from any noise disturbances.

2.2.8. Government Sewer Policy 2019

The Government Sewer Policy (GSP) is a whole of Government policy, intent on establishing the governmental position on the provision of sewer services within WA through the progressive planning and development of land. The subject land is located within a sewer sensitive area in accordance with



DPLH Plan WA mapping. Connection to reticulated sewer is not available for the proposed development, with surrounding development serviced by on-site effluent disposal systems.

A Land Capability Assessment been undertaken in support of this application, to determine the sites capability to support on-site effluent disposal in accordance with the provisions of the GSP. Once the future lot layout is known, a Site and Soil Evaluation will be prepared and provided in support of any future subdivision application.

The details of the Land Capability Assessment are discussed in *Section 3.2* of this report and the full report is included at **Appendix G**.

2.3. LOCAL PLANNING FRAMEWORK

2.3.1. Nambeelup North Dandalup Local Rural Strategy

As part of the Shire's Nambeelup North Dandalup Local Rural Strategy, the subject land was identified as part of the Rural Residential 1 (RR1) precinct, which designated lots suitable for a prescribed density of 1-9ha. This precinct is within easy access of services and community facilities in North Dandalup, as Lakes Road runs through the centre of the precinct providing efficient east-west access to major transport routes, including the Kwinana Freeway and South Western Highway.

- Planning to address floodway and coordinated provision of access, particularly for the land south of Lakes Road - addressed in *Section 3.3* and Local Water Management Strategy at **Appendix A**;
- Lot sizes to be 1.0ha through to 4.0ha or larger depending on land capability and intended stock rates - proposed residential cells are capable of accommodating lots of this size range, as demonstrated within the Subdivision Concept Plan at **Plan 2**;
- Servicing availability, and potentially provision of reticulated water supply where practical and reasonable - addressed within *Section 3.5* and Engineering Infrastructure Report at **Appendix H**;
- Provision of trail networks, public open space and community facilities - addressed within *Section 5.1* and demonstrated on Subdivision Concept Plan at **Plan 2**;
- Vegetation retention, assessment and revegetation measures - addressed within *Section 3.1* and Environmental Assessment Report included at **Appendix D**;
- Water management planning addressed within *Section 3.3* and LWMS at **Appendix A**;
- Fire management planning - addressed within *Section 5.3* and Bushfire Management Plan at **Appendix B**; and
- Demand assessment and staging addressed within *Section 3.5* and Engineering Servicing Report at **Appendix H**.

While the Local Rural Strategy is no longer in effect and the Shire has since adopted the "Special Rural" zoning, the above provisions are still considered relevant to this proposal and have been assessed accordingly throughout this report.



2.3.2. Shire of Murray Local Planning Scheme No. 4

The subject land is located within the “Rural” zone in accordance with the Shire Local Planning Scheme No. 4 (**Figure 5**).

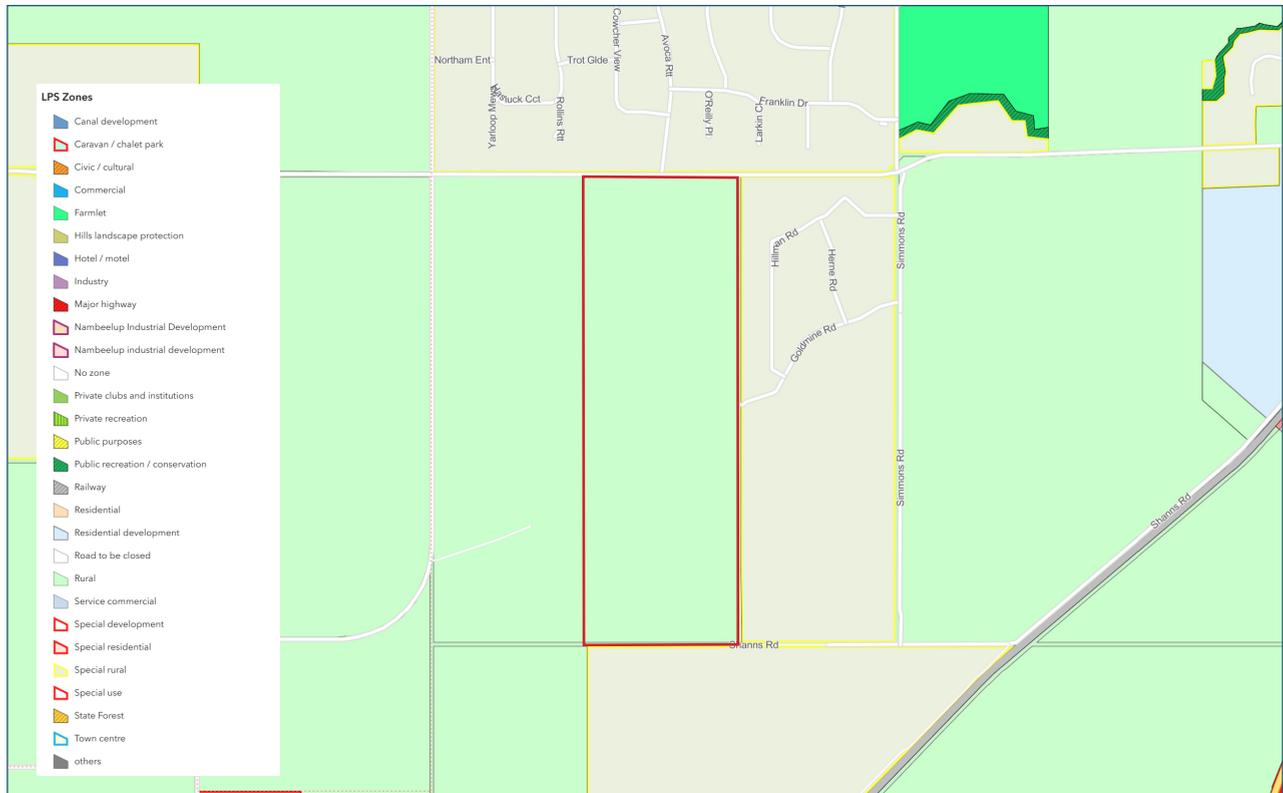


FIGURE 5. Local Planning Scheme No. 4

As depicted in **Figure 5**, the proposed rezoning will be consistent with the surrounding context and serve to consolidate the “Special Rural” footprint of the area. It is also noted that the ability for the subject land to be used for rural activities is heavily restricted by the extent of the North Dandalup river that intersects with the lot and adjoining “Special Rural” zoning to the north, east and south. Therefore, this proposal is considered to be consistent with the strategic intention of the land as set out in the Shire’s Rural Land Strategy and LPS 4.

2.3.3. Local Planning Policy - Water Sensitive Urban Design

Local Planning Policy - Water Sensitive Urban Design aims to protect the environmental values of the Peel Inlet Harvey Estuary Catchment through the application of water quality, quantity and efficiency targets and design objectives for strategic planning, subdivision and development applications.

Full compliance with the environmental quality criteria set out in Appendix 1 of the policy has been demonstrated within the Local Water Management Strategy prepared for the site and included as part of this Structure Plan at **Appendix A**.



2.3.4. Local Planning Policy - Vegetation Management

Local Planning Policy - Vegetation management aims to provide information to developers on Council's requirements, as they relate to revegetation management required by the Special Provisions of the Shire of Murray LPS 4 and as a subsequent condition of subdivision approval.

The following provisions apply to areas located within the "Special Rural" zone and are therefore relevant to this proposal:

- a) The subdivision shall be designed to minimise the impact upon existing vegetation.
- c) No existing vegetation is to be removed except for the approved clearing of firebreaks, roads, fences, and utility easements, or where trees are dead, dying or in otherwise dangerous condition. Proposals to clear vegetation shall be assessed by Council's Environmental Officer and generally kept to a minimum in all circumstances.
- d) Building envelopes should not be cleared at the time of subdivision, but left for future lot owners to clear at the time of building, after their location is confirmed to the satisfaction of the Council and the lot owners.
- m) A Foreshore Management Plan is required where the site has land which is within 30 metres of a waterway managed by the Peel Inlet Management Authority.

In accordance with the above provisions, the Concept Subdivision Plan included at **Plan 2** has been designed to minimise vegetation loss and includes significant areas of foreshore reservation to capture and preserve the bulk of vegetation fringing the North Dandalup river. No areas outside of roads, firebreaks or utility easements are proposed for clearing.

Further details regarding the retention and protection of vegetation across the site has been included within the Environmental Assessment Report at **Appendix D** and Foreshore Definition Study at **Appendix F**.

2.3.5. Local Planning Policy - Biodiversity Protection

Local Planning Policy - Biodiversity Protection seeks to ensure that any land use or development in close proximity to or containing a natural area is compatible with the long-term maintenance and conservation of that natural area, and will not have detrimental impacts on biodiversity.

As noted above, a significant foreshore reserve area has been included on the Concept Subdivision Plan attached at **Plan 2** to act as a buffer between areas proposed for "Special Rural" and natural areas associated with the North Dandalup river.

Further details regarding the management of these areas have been included within the Environmental Assessment Report at **Appendix D** and Foreshore Definition Study at **Appendix F**.



3 OPPORTUNITIES AND CONSTRAINTS ANALYSIS

In support of the proposed Structure Plan, the following reports have been prepared:

- Local Water Management Strategy - **Appendix A**
- Bushfire Management Plan - **Appendix B**
- Transport Impact Assessment - **Appendix C**
- Environmental Assessment Report - **Appendix D**
- Biological Surveys - **Appendix E**
- Foreshore Definition Study - **Appendix F**
- Land Capability Assessment - **Appendix G**
- Engineering Servicing Report - **Appendix H**

A complete copy of these supporting documents can be found in the relevant appendices to this report.

3.1. BIODIVERSITY AND NATURAL AREA ASSETS

An Environmental Assessment Report (EAR) has been prepared for the subject land to assess the existing environmental values and any potential constraints to future development. The EAR is supported by a Flora and Fauna Assessment and other biological surveys undertaken across the site. A black cockatoo habitat assessment was included as part of these surveys.

3.1.1. *Flora & Fauna*

While the biological assessments recorded no conservation significant flora or Threatened Ecological Communities (TEC), a total of 54.1 ha of native vegetation was identified in conditions ranging from Degraded to Completely Degraded. Of these areas, a total of 45.6ha of suitable black cockatoo habitat is assumed to be present across the site. The vast majority of the identified native vegetation and black cockatoo habitat will be retained in perpetuity within the proposed 52 ha of Foreshore Reserve and POS.

Individual trees outside of the proposed conservation areas have been assessed and their locations depicted on a map (**Figure 6 overleaf**). It is expected that all of the trees within the northern two-thirds can be comfortably retained within lot boundaries or areas of road reserve due to the proposed future zoning for 'Special Rural'. The southern portion of the site is subject to denser areas of vegetation and will require detailed design to locate building envelopes and APZ's in a way that ensures any vegetation loss is kept to an absolute minimum.

A condition of approval has therefore been proposed to require the provision of a detailed Environmental Management Plan under the statutory provisions of Part One in this Structure Plan. This will ensure that no un-warranted or excessive clearing occurs and that all areas of significant vegetation will be maintained and protected in perpetuity.

A copy of the EAR is included at **Appendix D** and a copy of the Biological Surveys at **Appendix E**.



3.1.2. Wetlands/Foreshore Reserves

A Foreshore Definition Study (FDS) was undertaken over the extent of the North Dandalup river traversing the site to determine the appropriate width of foreshore setback.

A minimum separation of 30m from the top of bank to any development will be required to ensure there will not be any adverse impacts to the waterway as a result of future development of the land.

The foreshore setbacks recommended by the FDS have been adopted in the Structure Plan.

3.2. LANDFORM AND SOILS

3.2.1. Topography

The topography of the site slopes predominately east to west from a height of approximately 26m Australian Height Datum (AHD) along the eastern boundary to 20m (AHD) at the western boundary (with a low point of 18m (AHD) within the North Dandalup river bed).

3.2.2. Geology

A Land Capability Assessment has been prepared to determine the capability of the subject land to support on-site effluent disposal. The assessment includes an analysis of soil profiles, site slope, surface conditions, soil permeability and investigations for shallow groundwater occurrence.

As a result of these investigations, areas have been identified where additional filling and/or drainage methods such as shallow swales will be required to ensure that ponding of shallow water does not occur.



FIGURE 6. Potential Habitat Trees



These findings will be further refined as part of a Site and Soil Evaluation (SSE) to be prepared on the basis of additional data received following peak winter testing set to occur over the following winter. A condition of approval has therefore been included under the statutory provisions of Part One to ensure that a SSE is provided to accompany an application for subdivision once a final lot layout is known. The SSE will need to include a depiction of the proposed Land Application Areas (LAA) that has been informed by the above data.

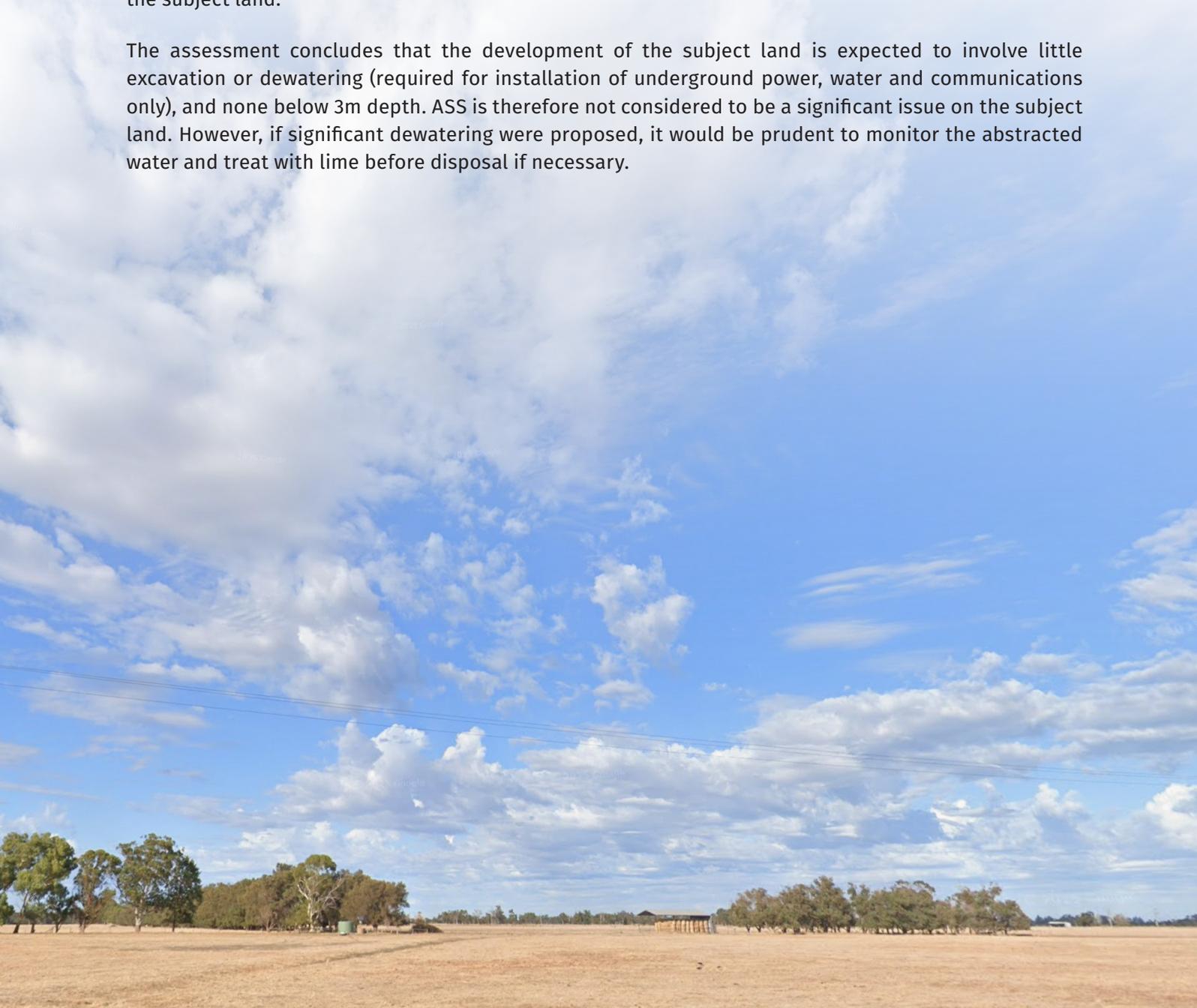
While further refinement at the lot layout is still required, it is considered that the provided Land Capability Assessment adequately demonstrates that the subject land is capable of accommodating on-site effluent disposal suitable for development of a rural-residential nature.

A copy of the Land Capability Assessment is included at **Appendix G**.

3.2.3. *Acid Sulfate Soils (ASS)*

Landgate's Acid Sulfate Soils ('ASS') risk mapping has identified the Structure Plan area as having 'Moderate to low risk' of potential / actual ASS. As detailed in the Land Capability Assessment included at **Appendix G**, the nearest mapped high ASS risk area is a wetland located about 1.8km north-west of the subject land.

The assessment concludes that the development of the subject land is expected to involve little excavation or dewatering (required for installation of underground power, water and communications only), and none below 3m depth. ASS is therefore not considered to be a significant issue on the subject land. However, if significant dewatering were proposed, it would be prudent to monitor the abstracted water and treat with lime before disposal if necessary.





3.3. WATER MANAGEMENT

A Local Water Management Strategy (LWMS) has been prepared for the subject land to establish the general design measures for flood mitigation and stormwater management for the Structure Plan area, and will guide the development of an Urban Water Management Plan (UWMP) which is to be prepared at the subdivision stage.

A copy of the LWMS is included at **Appendix A**.

3.3.1. *Groundwater*

The LWMS notes that groundwater levels at the site are partially controlled by the natural watercourses and constructed (agricultural) drains. Pre-development monitoring has progressed which includes monitoring bores screened within both the surficial soil horizons (to capture potential shallow perching) and the slightly deeper sand horizons which are reflective of the regional superficial aquifer.

The proposed rural residential development will not significantly change the hydrological conditions or groundwater levels at the site. Consistent with the current conditions, agricultural drains are proposed to be retained or modified, along with the use of roadside swales, to provide drainage relief for lower-lying parts of the site and prevent groundwater inundation in those areas. Existing drains will for the most part be realigned with lot boundaries and have associated easements over them consistent with their drainage function.

3.3.2. *Surface Water*

The site is located in the North Dandalup River catchment, which is a sub-catchment of the Murray River. The North Dandalup River and North Dandalup River Tributary run through the site in a north-east to south-west direction. The main channel is mostly well-defined and deeply incised (Bayley Environmental Services 2025a). Another creek line also confluences with the North Dandalup River within the site boundary. Lakes Road to the north of the site is drained via table drains towards North Dandalup River.

Site specific surface water monitoring has been undertaken to inform the surface water modelling, drainage design and to develop post-development surface water quality targets.

3.3.3. *Stormwater Management & Drainage*

The drainage strategy proposed within the LWMS aims to utilise and tie into the existing topography and drainage features of the site, with stormwater conveyance primarily provided by roadside swales graded to the North Dandalup River floodplain. It is expected that minimum habitable floor levels will need to be constructed at least 0.5m above the 1% AEP flood level in the adjacent North Dandalup River. To ensure that the any future rural residential development will not significantly change the hydrological conditions or groundwater levels at the site it is intended that agricultural drains will be retained and realigned to road reserves or lot boundaries.

In addition to the proposed drainage strategy, extensive flood modelling has been conducted to help define the appropriate setback for the proposed Foreshore Reserve as defined within the Foreshore Definition Study and to ensure that any flooding associated with the 1 in 100 year event (worst-case scenario) can be suitably contained wholly within the Foreshore Reserve.



3.4. BUSHFIRE HAZARD

The site is located within a Department of Fire and Emergency Services (DFES) Bushfire Prone Area. Subsequently, in accordance with the requirements of SPP3.7 and the accompanying Guidelines for Planning in Bushfire Prone Areas, a BMP has been prepared by Western Environmental in support of the Structure Plan.

The BMP considers the bushfire hazards surrounding the subject site and the associated bushfire risk is readily manageable through standard management responses. On implementation of the proposed management measures, the subject site will be able to be developed with a manageable level of bushfire risk while maintaining full compliance with the relevant controls.

Further details regarding site specific bushfire mitigation is provided within *Section 5.3* below.

3.5. SERVICING

An Engineering Infrastructure Report has been prepared to assess the potential engineering requirements required to support rural residential development of the subject land.

The findings of the report are included at **Appendix H** and are summarised in the following sections:

3.5.1. Water

Water Corporation have advised that the development is to be serviced with water via an extension of the existing DN150 reticulation main within Goldmine Road. The DN150 water main is to extend through the subdivision to Shanns Road in the south and connect to the now existing DN150 reticulation main. The DN150 main is to also extend north through the subdivision to Lakes Road to provide service to the proposed rural residential lots.

3.5.2. Power

An existing 22kV overhead distribution power runs within the Site, parallel to Lakes Road. It is expected that this will be required to be undergrounded as part of any subdivision development works. As such, power services can be adequately extended to service the future development of the land.

3.5.3. Sewerage

As no sewerage infrastructure is present within the surrounding area, on-site effluent disposal will be delivered through the use of on-site ATU's and leach drains. LAA's required to accommodate effluent disposal within lots adjacent to the North Dandalup River and other existing water courses will require a minimum 100m setback from watercourses in accordance with the Government Sewage Policy. Final sizings and locations for effluent disposal will be provided as part of a SSE to be provided to accompany any application for subdivision.

3.5.4. Gas

ATCO Gas Network Coverage mapping indicates that there are presently no reticulated assets located in the immediate vicinity of the subject site.



3.5.5. Telecommunications

Telecommunications services are available in the wider area and can be adequately extended to service any future residential development of the land.

3.5.6. Road infrastructure

The future proposed development will require the following general road network:

- Internal roads in road reserves;
- A connection to existing Lakes Road;
- A connection onto existing Shanns Road;
- A connection to existing Goldmine Road; and
- Future connection points to undeveloped land to the south-east and west.

In general, roads and drainage will be designed to/based on vertical grades in accordance with Australian Standards and the Shire of Murray engineering standards.

3.6. HERITAGE

3.6.1. Aboriginal Heritage

Aboriginal Registered Site Dandalup River (ID 27937) is associated with the North Dandalup River, its mythological narratives of the Waugal and its importance as water resource and hunting place. The extent of Aboriginal Registered Site Dandalup River (ID 27937) is depicted in **Figure 7 overleaf**.

To protect this area of cultural significance, the entirety of the site is proposed to be captured within a foreshore reserve and significantly separated from any areas of development. This will aid in the restoration of the site, which has been severely degraded since the inception of European occupation on the land.

Early engagement was sought with the Department of Planning, Lands and Heritage (DPLH) to determine whether a Section 18 approval under the Aboriginal Heritage Act 1972 would be required to be undertaken as part of the application for rezoning of the land from Rural to Special Rural. Correspondence was subsequently received advising that the proposed scheme amendment would not require Section 18 approval, however any future subdivisional works that intersect with the registered site may need approval. A copy of this correspondence is included at **Appendix J**.

As it is expected that the future subdivision of the land would require a crossing to be constructed intersecting the registered site, liaison has now been commenced with the Gnaala Karla Booja ILUA Corporation to initiate this process. This process will be documented and included as part of a Section 18 application, which may be required as a condition of approval for any subdivision of the subject land.



FIGURE 7. Aboriginal Registered Site Dandalup River (ID 27937)

3.6.2. *European Heritage*

No registered sites of historic significance were identified during a desktop search of the subject site.



4 STAKEHOLDER AND COMMUNITY ENGAGEMENT

As part of our pre-lodgement consultation with the Shire of Murray, a meeting was sought with Shire planners to discuss the ultimate intention for the land following a successful rezoning and to provide assurance that the necessary investigations were being undertaken to demonstrate the subject lands' capability to accommodate rural residential development.

Appreciation was expressed for the level of detail being provided to support the application for rezoning and in particular the preparation of a comprehensive LWMS, as drainage and water management were considered a key matter to be addressed before rezoning could occur.

It was suggested that early engagement with Shire engineers regarding the proposed drainage management would be beneficial and it was therefore agreed that an early copy of the LWMS would be submitted in DRAFT form prior to the submission of the formal application, to allow the Shire to provide key comments or address any deficiencies that could then be addressed in the final report.

Following initial engagement, the need for a structure plan to address the subject land was put forth by Shire officers to assist in the coordination of road connections to the west and help determine the appropriate interface between rural-residential areas and the proposed foreshore reserve area.

To assist in the timing of the project overall, it was therefore agreed that the structure plan document would be advertised concurrently with the scheme amendment application for the rezoning of the land from Rural to Special Rural.

A secondary pre-lodgement meeting and design-roundtable was then held with the Shire to discuss any suggested modifications to the proposed concept layout that was submitted as part of the application for rezoning.

Minor amendments arising from the design collaboration were then adopted into the proposed concept layout included at **Plan 2** of this Structure Plan documentation. These included a greater definition of the interface between the foreshore reserve and rural-residential development by realigning roads along the boundary of the foreshore reserve, and the provision of future road connections for land to the west ceded as Right of Way (ROW) reserves to the management of the Shire.

It is hoped that the assessment of this Structure Plan concurrently with the proposed scheme amendment application will assist in demonstrating to the relevant authorities that the level of investigation and planning informing the documents is evidence of the lands suitability for rezoning for rural-residential development.





5 DESIGN RESPONSE

The Lot A39 Lakes Road Structure Plan sets out the land uses, residential densities, environmental conservation areas, vehicle access and servicing requirements. The proposed Structure Plan includes areas identified for 'Special Rural' development, as well as a large area of foreshore reserve, multiple walking trails, fire access routes and road reserves with drainage infrastructure.

5.1. FORESHORE RESERVE

A significant area of Foreshore Reserve is proposed to accommodate the North Dandalup River and surrounding native vegetation, which occupies the central spine running south-west across the land. This area suitably captures a considerable portion of the remnant vegetation on site and will protect the environmental values contained within in perpetuity.

A Foreshore Definition Study (FDS) has been prepared to define the ultimate area of foreshore reserve on the basis of biophysical assessments and floodway modelling. This report has been prepared in conjunction with the EAR and LWMS to ensure that a robust and accurate delineation is determined for the ultimate setback. The Foreshore Reserve boundary depicted within the FDS has been adopted as the ultimate boundary proposed as part of this application.

A condition of approval for the preparation and endorsement of a Foreshore Management Plan has been included under the statutory provisions in Part One of this Structure Plan. This will be required to address rehabilitation, completion criteria and ongoing management of the foreshore reserve and will need to be prepared in liaison with the Shire of Murray environmental officers. Following completion of the rehabilitation works set out in the Foreshore Management Plan and the completion criteria having been achieved, the foreshore reserve will be handed over to the Shire of Murray for ongoing management.

Walking trails are proposed throughout the foreshore reserve providing a safe and attractive network for pedestrian access throughout the estate and into adjoining areas. These walking trails also act as an additional barrier to the environmental conservation areas associated with the wetland which reduces the likelihood of any degradation occurring from human activity/illegal disposal of waste.

A copy of the FDS is included at **Appendix F**.

5.2. RESIDENTIAL

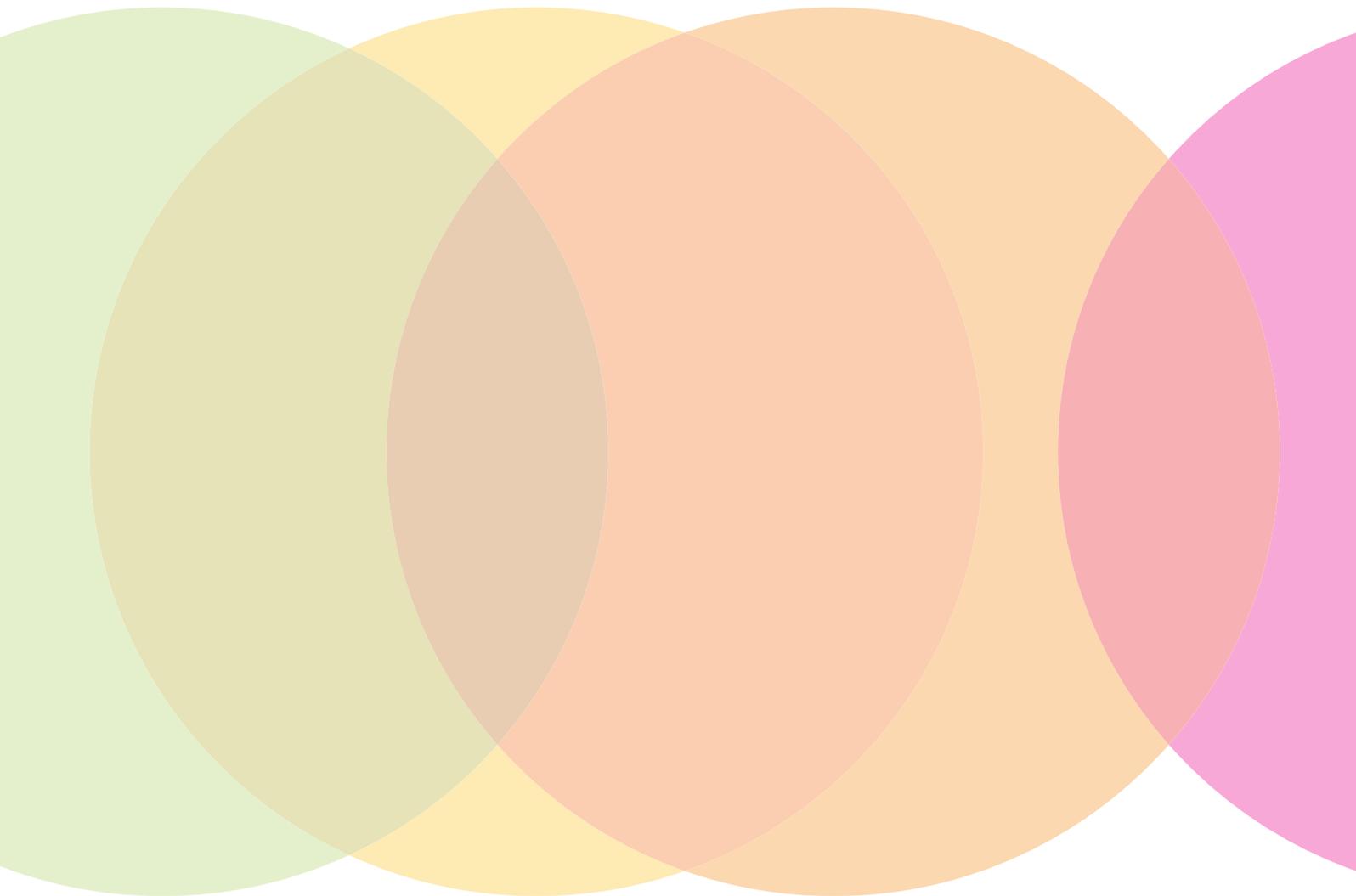
Specifically, the Structure Plan proposes approximately 128ha of freehold residential allotments at an equivalent density of 1-2ha. A Subdivision Concept Plan is provided within **Plan 2** below and was prepared to assist with the preparation of the relevant technical studies appended to this Structure Plan.

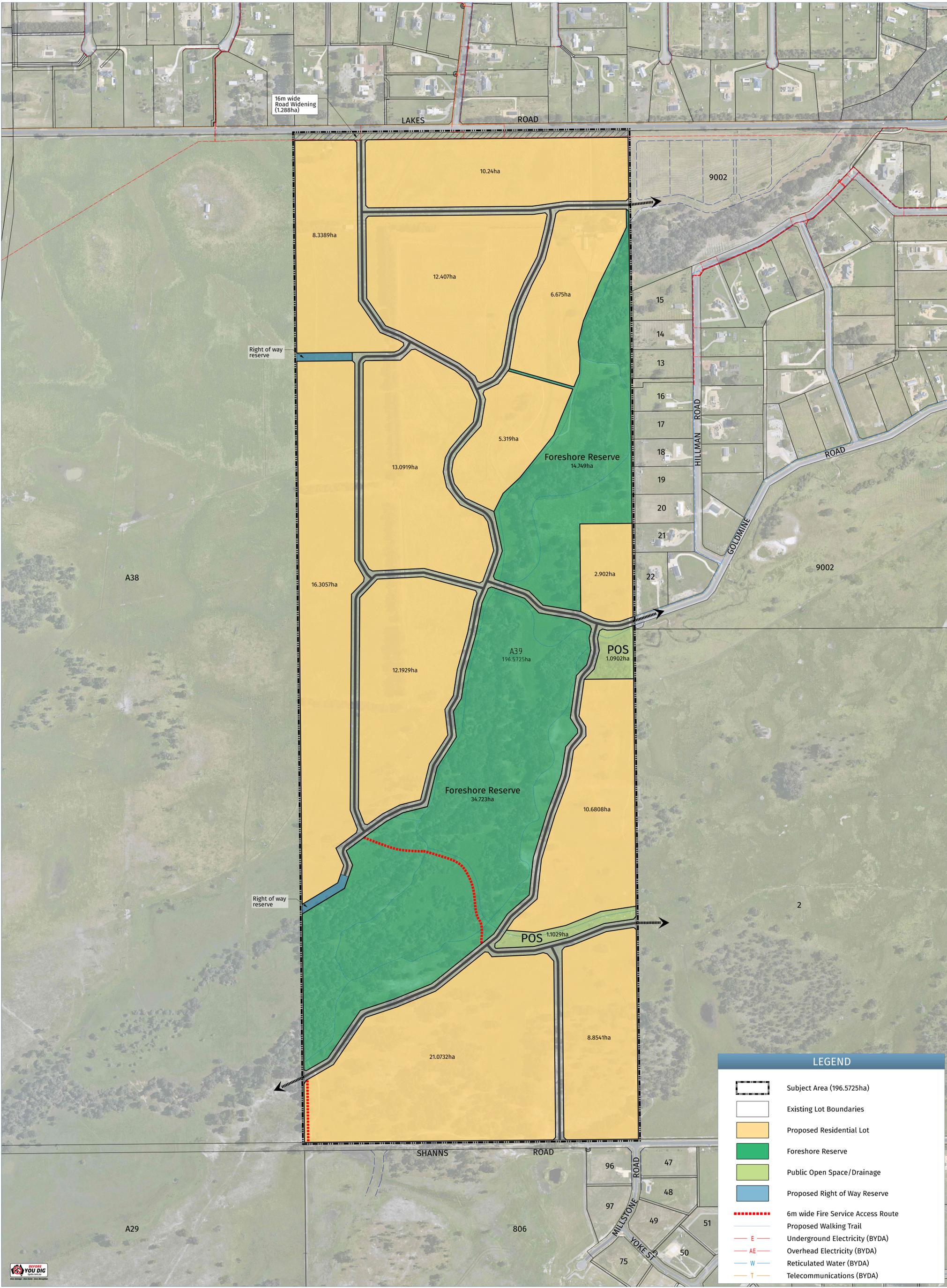
Based on an average of 2.8 persons per household and an estimated yield of 120 dwellings, the estimated population of the Structure Plan area is 336 people.

5.3. BUSHFIRE MANAGEMENT

A Bushfire Management Plan (BMP) has been prepared in support of this Structure Plan as portions of the property are designated as being bushfire prone land. In accordance with the level of assessment required

PLAN 2 - CONCEPT SUBDIVISION PLAN





LEGEND	
	Subject Area (196.5725ha)
	Existing Lot Boundaries
	Proposed Residential Lot
	Foreshore Reserve
	Public Open Space/Drainage
	Proposed Right of Way Reserve
	6m wide Fire Service Access Route
	Proposed Walking Trail
	Underground Electricity (BYDA)
	Overhead Electricity (BYDA)
	Reticulated Water (BYDA)
	Telecommunications (BYDA)

CONCEPT SUBDIVISION PLAN

Lot A39 (No. 1818) Lakes Road,
NORTH DANDALUP

Date: 8/12/25
 Drawn: TJ
 Checked: MB
 Base Data: Landgate Oct 25
 Projection: MGA2020 Z50
 Plan No: 24507-03
 Rev: B

Scale: 1:4000 @A1
 0 50m 100m 150m

Harley Dykstra
 SURVEYING | TOWN PLANNING | PROJECT MANAGEMENT
 PERTH - PEEL SOUTH WEST GREAT SOUTHERN
 9425 1947 9324 6000 9344 2100
 info@harleydykstra.com.au www.harleydykstra.com.au

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for strategic proposals under the planning for Bushfire Guidelines 2024, a Bushfire Hazard Level (BHL) assessment has been prepared against the pre-development vegetation extent, which demonstrates that even in its most-extreme state, the subject land is able to safely accommodate development over the majority of the site.

While most of the vegetation classified as having an Extreme rating is captured within the proposed foreshore reserve and thus will be suitably separated from future dwellings, there are also significant areas across the southern portion of the site that are classified with an extreme rating. It is considered that the use of larger lot typologies and specific Asset Protection Zone (APZ) requirements can be utilised to ensure building areas can be located with sufficient separation from vegetation without the need for excessive clearing.

The BMP has assessed the access requirements of the subject site and determined that the current options would provide suitable access and egress for the community and emergency services personnel in the event of a bushfire. It also demonstrates compliance for the proposed Emergency Accessway (EAW) which connects the north-western portion of the site through the foreshore reserve to the south, ensuring both areas can achieve two-way evacuation routes in an emergency situation.

It is expected that once the future lot layout has been determined, an updated BMP will need to be prepared and lodged as part of any application for subdivision of the subject land. This will need to include detailed specifications in relation to APZ's for lots proposed within the southern portion of the site and provide assessments on and justification for the inclusion of any cul-de-sacs in the design.

A complete copy of the BMP is included in **Appendix B** of this report.

5.4. MOVEMENT NETWORKS

A summary of the proposed movement networks is provided below.

5.4.1. Road Network & Access

The primary access to the Structure Plan area is proposed from Lakes Road. This access (Access Road 1, as identified in the TIA) will cater to the majority of traffic generated by the site. Access Road 1 is located with a minimum separation distance of 200m to the nearest existing intersection to the Avoca Retreat Estate, which is located to the north of the structure plan area. This separation ensures that the current speed limit of 100km/hr can be maintained with no impact to traffic safety along Lakes Road.

Furthermore, the location of proposed Access Road 1 is considered to be within a reasonable distance from the landholdings to the east and west allowing the potential for future development of these landholdings to benefit from use of this access.

This is particularly suitable in lieu of the approved but as-of-yet unconstructed access to Lot 9001 to the east, which is disconnected from the existing development south of the North Dandalup river. It is therefore logical that the future lots approved for Lot 9001 derive access from the proposed east-west road (Access Road 2) provided in the structure plan area, therefore reducing the number of intersections providing access from Lakes Road.

Following consultation with the Shire during the structure plan design roundtable, it was suggested that future access points should be provided for land to the west, which is currently designated as "Rural



Residential Investigation” under the South Metropolitan Peel Sub-Regional Planning Framework.

As there are still a number of issues which will need to be resolved before the land to the west can be rezoned for rural residential development, connections to the proposed road network have been provided in the form of Right of Way (ROW) reserves to be ceded to the local government as part of future subdivision of the structure plan area.

A list of all proposed access points is provided below:

- Access road 1 – Full movement access at existing east-west road
- Access Road 2 – Full movement access at future east-west road
- Access Road 3 – Full movement access at existing east-west road
- Access Road 4 – Full movement access at future east-west road
- Access Road 5 – Full movement access at existing east-west road
- Access Road 6 – Full movement access at future east-west road

5.4.2. Road Upgrades

As part of planned future upgrades, Lakes Road will require widening of the road reserve from 20m to 36m, with the widening to be provided on the southern side of the road (as per engineering plans provided by Shire). The Structure Plan Map show a provision of 16m of widening on the southern side of Lakes Road, into Lot A39 to facilitate the future upgrades.

The remainder of proposed access points listed above will be connected to roads constructed as part of the adjacent lot developments and are expected to be built to an appropriate rural standard.

5.4.3. Public Transport

As the structure plan area is located within a rural residential area, no changes are proposed to the existing public transport services within the short term.

5.4.4. Pedestrian and cycle network

The Department of Transport’s aspirational future cycling network within the Perth metropolitan region shows the proposed cycle route hierarchy for the roads surrounding the Structure Plan area which are summarised below:

- Lakes Road: Secondary Route
- South Western Highway (portion): Secondary Route

It is expected that the pedestrian and cycle network for Lakes Road can be delivered as part of the future upgrades associated with the Lakes Road road widening.



5.4.5. Analysis of Transport Network

Under the current road network arrangement, access to key generators and attractors will be via Lakes Road. Once the surrounding road network is built up and more route options are available, drivers are more likely to use local roads (such as Shanns Road) to travel to and from the attractors within the surrounding area.

Furthermore, the proposed internal access links to future development to the east and west will reduce the need for future access points from Lakes Road, maintaining design speed and safety.

In relation to the expected impacts from the future development within the structure plan area, the TIA anticipates that the maximum traffic volumes generated will be at a level of density common for 'Special Rural', and will have a minimal impact to neighbouring areas with volumes suitably falling within the threshold for 'access roads'.

A summary of the conclusions presented within the TIA are as follows:

- The predicted traffic increase from the development is expected to be low to moderate as per WAPC Transport Assessment Guidelines;
- Public transportation is poor within the surrounding area, with only one train service located 4km from the Site
- Pedestrian / bike network is adequate with shoulders located along each side of Lakes Road, there is a likelihood of improved pedestrian and bike network facilities once the Lakes Road upgrade is completed and adjacent development increases; and
- Due to the nature of the development, it is envisaged that any impact on road safety would be negligible.

A Transport Impact Assessment (TIA) has been prepared by PTG in support of this Structure Plan and is contained at **Appendix C**.

5.5. IMPLEMENTATION

The proposed Structure Plan has been prepared in accordance with the requirements of the Planning and Development (Local Planning Schemes) Regulations 2015. Further, the Structure Plan complies with the applicable State and Local Planning Policy Framework as set out in *Section 2.3* of this Report.

The Planning and Development (Local Planning Schemes) Regulations 2015 stipulates the manner by which the Structure Plan will be processed by the Shire of Murray and thereafter, the Western Australian Planning Commission to enable final approval.

Once the Structure Plan is sufficiently progressed, development and/or subdivision applications can be considered and approved where they comply with the Structure Plan.