



Lot 6 Sand Pits Road,
Crooked Brook

Structure Plan Report

Prepared for M&G Muir

DOCUMENT CONTROL

ISSUE	DATE	ISSUE DETAILS	APPROVED
One	July 2017	Public Advertising	AR/GB
Two	April 2018	Council Adoption	AR/GB
Three	October 2020	WAPC requested updates Change from Calibre to Planned Focus format	KH

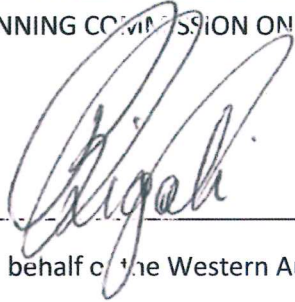
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This structure plan is prepared under the provisions of the Shire of Dardanup Local Planning Scheme Number 3.

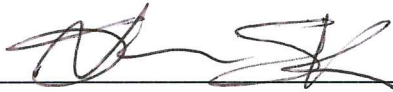
IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON: 18-Nov-2020

[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

18-Nov-2020

Date

18-Nov-2030

Date of Expiry

Table of Amendments

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

Executive Summary

Planned Focus has been engaged by M & G Muir to prepare a Structure Plan (and associated rezoning Amendment 191) over Lot 6 Sand Pits Road, Crooked Brook.

The subject land is located approximately 3.5km southeast of the Dardanup townsite and has an area of 41.871 hectares.

The subject land has historically been used for grazing and the keeping of livestock. Because of years of grazing, the land is predominantly clear of all vegetation. There are three pockets of vegetation located along the northern boundary line, southwestern corner and eastern portion of the site. A Resource Enhancement wetland is located within the central portion of the site.

These pockets of remnant vegetation are identified within the Structure Plan for protection, with suitable buffers provided to accommodate these protection measures.

Majority of the subject land is identified within the Crooked Brook/ West Dardanup Structure Plan (endorsed 2006, also referred to as the Dardanup Small Holdings Structure Plan). The eastern portion of the site was for reasons unknown to staff at the Shire of Dardanup not included within the Structure Plan area.

Discussions with the planning staff at the Shire of Dardanup has indicated their support to include the entire of Lot 6 within the Structure Plan area and associated rezoning amendment for Small Holdings development. There is no other existing structure plan over the subject land. The proposed structure plan is limited to Lot 6 and does not overlap with any other structure plan.

The Structure Plan (refer *Figure One: Structure Plan*) proposes 18 lots ranging from approximately 1ha to 15ha are proposed with an average lot size being 2.3ha.

The eastern portion of the site accommodates three larger lots to ensure protection of the existing wetland and vegetation. The western portion of the site incorporates 15 lots ranging in size from approximately 1ha to 3.8ha. All lots include building envelopes to designate developable areas, providing setbacks to boundaries as well as the larger pockets of existing vegetation to be protected.

Access to the development will be by way of repositioned Sand Pits Road to avoid vegetation in the existing Sand Pits Road Reserve, through to a Private Driveway to access rear lots. This design has the road central within the site to preserve vegetation.

Sand Pits Road south of the development to Poad Road (approximately 1km) will be constructed to a gravel standard, to the satisfaction of the Shire of Dardanup (similar to that of Poad Road) to provide an alternative exit to the development.

Table One: Structure Plan Summary

Item	Data
Total area covered by Structure Plan	41.871 hectares
Total estimate ⁴ d lot yield	18
Estimated number of dwellings	18
Average lot size	2.3 hectares
Estimated area of vegetation protection	14.39 hectares

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Part 1

Implementation

Structure Plan Area

The Structure Plan applies to the whole of Lot 6 Sand Pits Road, Crooked Brook being the land contained within the boundary marked 'Subject Land' on the Structure Plan map and having an area of 41.871 hectares (refer *Figure One: Structure Plan*).

Operation

The Shire of Dardanup Local Planning Scheme No.9 and the Crooked Brook/West Dardanup Structure Plan enable the Structure plan. Both of which specifically identify the subject land for further structure planning and subdivision.

The Structure Plan comes into effect on the date it is approved by the Western Australian Planning Commission.

Staging

Any staging of the structure plan will be determined by specific subdivision applications in response to market demand.

Subdivision and development requirements

This Structure Plan provides a basis for zoning and subdivision of land and will be given due regard with determining applications within the Structure Plan area, including consideration of the objectives and requirements of the Scheme zone proposed by the Structure Plan.

The following subdivision and development requirements are to be implemented in conjunction with the Structure Plan map:

General

1. No more than one dwelling per lot.
2. Except with the prior consent of the Shire, all buildings, structures and on-site effluent disposal systems on each lot shall be located within the "Developable Area" depicted on this plan.
3. In accordance with the current annual firebreak notice and Guidelines for Planning in Bushfire Prone Areas all lots are required to install and maintain 2 metre wide lot boundary firebreaks. Lots 12 to 17 are encouraged to apply for an exemption to the Shire's firebreak notice as a single firebreak around the south western area of vegetation over these lots is recommended.

Prior to Subdivision

The landowner/applicant is to provide the following information prior to or accompanying any subdivision application.

4. An Urban Water Management Plan to the satisfaction of the Local Government and Department of Water and Environmental Regulation.
5. A Site and Soil Evaluation consistent with the requirements of the Government Sewerage Policy.

Conditions of Subdivision

At subdivision stage, the Local Government shall request the Western Australian Planning Commission to impose the following (but not limited to) as conditions of subdivision:

6. Implementation of an approved Urban Water Management Plan to the satisfaction of the Local Government and Department of Water and Environmental Regulation.
7. Preparation and implementation of a Wetland Management Plan in consultation with the Department of Biodiversity, Conservation and Attractions.
8. Preparation and implementation of a Wildlife Protection Management Plan in consultation with the Department of Biodiversity, Conservation and Attractions.
9. Final lot boundaries for Lots 12 to 17 to be determined so as to identify, protect and retain vegetation worthy of retention.
10. Preparation and implementation of an Acid Sulphate Soils Management Plan to the satisfaction of Department of Water and Environmental Regulation.
11. Section 70A of the Transfer of Land Act 1893 / Section 165 of the Planning and Development Act 2005 notifications are to be placed on titles advising land owners that:
 - a. The area may be subject to seasonal inundation and significant Building Exclusion Areas apply as indicated on the approved Structure Plan.
 - b. The area is subject to seasonal mosquito infestation.
 - c. All dwellings shall be constructed to have a minimum finished floor level of 500mm above the nearest adjoining road level or 600mm above natural ground level, whichever is the greater, as determined by a licensed surveyor.
 - d. There is to be a minimum vertical separation distance of 600mm from the base of the irrigation area of a Secondary Treatment System with Nutrient Removal to the highest known water table; and
 - e. This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner as is/maybe subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land.
12. Implementation of the approved Bushfire Management Plan.
13. A private driveway (with shared reciprocal rights of access) is to be provided to Lots 9-12.
14. Uniform rural style boundary fencing in accordance with Appendix VIII, Area 14, Cl.(o) to be provided to all boundaries of all newly created lots.
15. Secondary Treatment Systems with nutrient removal capabilities shall be used to ensure Phosphorous Retention Index (PRI) requirements are met, unless otherwise recommended

by a geotechnical and PRI report, to the satisfaction of the Local Government and the Department of Health.

Scheme Amendment

This Structure Plan is associated with a rezoning amendment to the Shire of Dardanup Planning Scheme No. 3. Scheme Amendment No. 191 was approved on 8 September 2020.



LEGEND

- EXISTING CADASTRE
- CONTOURS 5m INTERVALS
- ▭ SUBJECT LAND
- PROPOSED CADASTRE
- INDICATIVE ROAD LAYOUT
- PROPOSED GRAVEL ROAD
- PROPOSED WETLAND VEGETATION
- - - EDGE OF VEGETATION
- - - VEGETATION BUFFER
- ▭ DEVELOPABLE AREA
- ▨ BUILDING EXCLUSION ZONE
- ▭ COVENANT AREA
- ▭ PRIVATE DRIVEWAY
- EXISTING MARRI TREE

NOTE

General

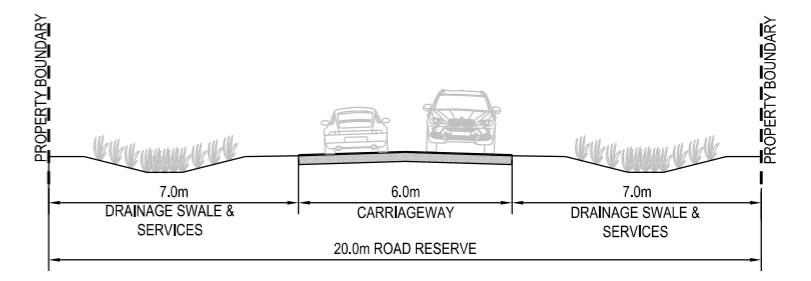
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SECTION A-A: INDICATIVE ROAD CROSS SECTION
SCALE: N.T.S.



Part 2

Explanatory Report

1 Planning background

1.1 Introduction and purpose

Planned Focus has been engaged by M & G Muir to prepare a Structure Plan over Lot 6 Sand Pits Road, Crooked Brook for facilitating the rezoning, subdivision and development of the land for Small Holdings pursuits.

1.2 Land Description

The subject land comprises the whole of Lot 6 (P232768) Sand Pits Road, Crooked Brook.

1.1.1 Location

The subject land is located approximately 3.5km southeast of the Dardanup townsite (refer *Figure 2: Location Plan*).

1.1.2 Area and land use

The subject land has an area of 41.871 hectares. The land is bound by Sand Pits Road along its western boundary, general farming zoned land along its east and west boundary and smallholdings zoned land to the north.

Historically the land has been cleared for grazing and the keeping of livestock, with the exception of three vegetated areas located along the northern boundary, southwestern corner and eastern portion of the site. A Resource Enhancement wetland is located across the central portion of the site (refer *Figure 3: Environmental Plan*).

1.1.3 Legal description and ownership

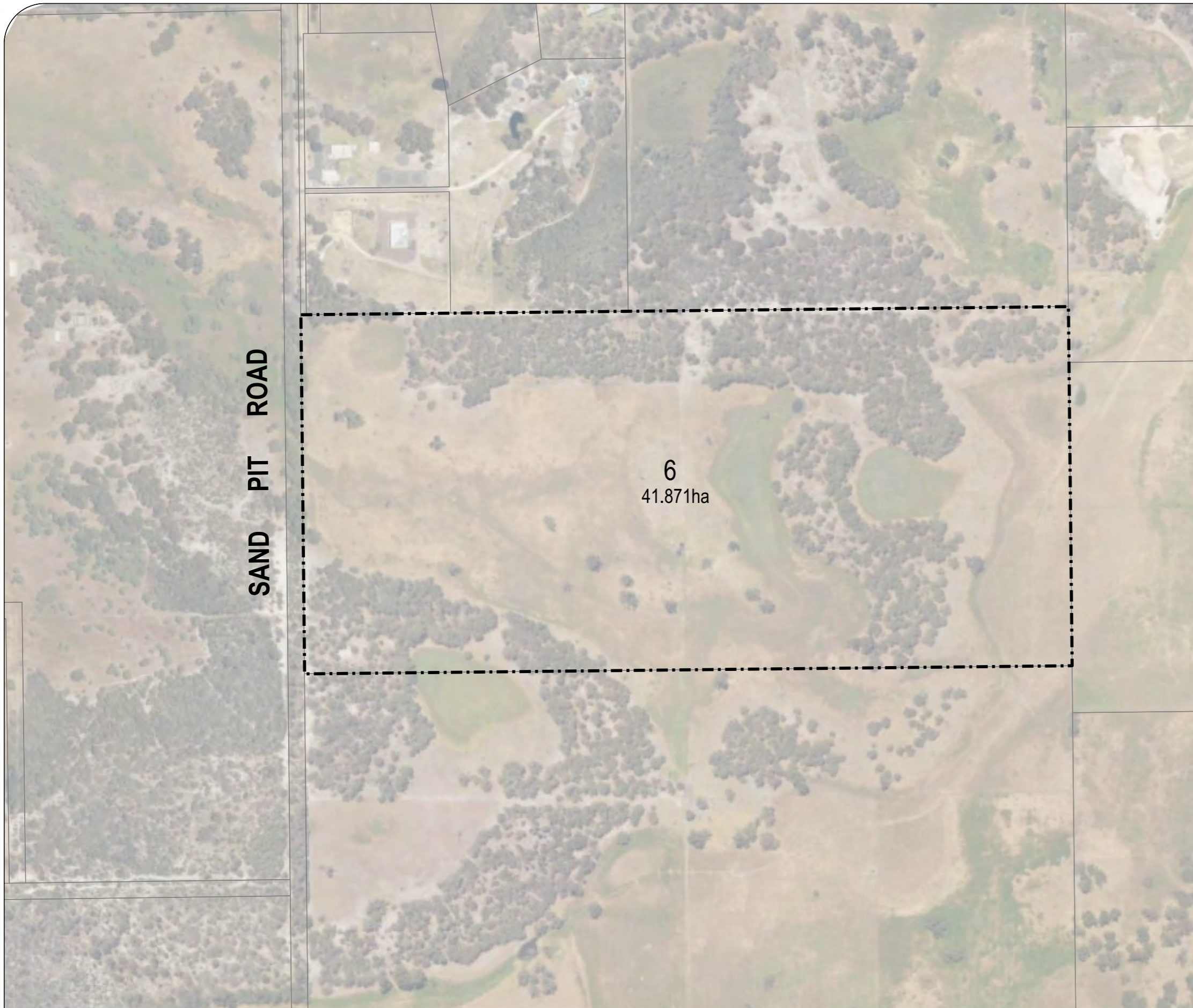
The legal description of the subject land is Lot 6 on Plan 232768 (Vol 36 Folio 146A) Sand Pits Road, Crooked Brook. It is owned by M & G Muir of Manjimup. A copy of the Certification of Title can be found at *Appendix A*.

1.3 Planning framework

Following is a description of the principal planning framework that provides a context for the proposed Structure Plan.

1.3.1 Zoning and reservations

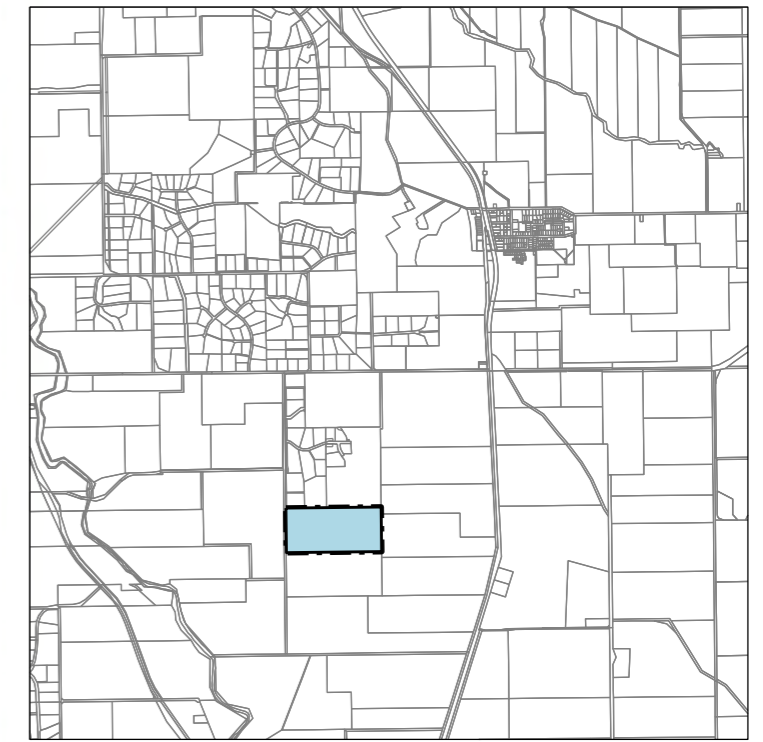
The subject land is zoned Small Holdings under the Shire of Dardanup Town Planning Scheme No.3.



LEGEND

— EXISTING CADASTRE

▭ SUBJECT LAND



LOCALITY PLAN

SCALE: N.T.S.

250m
0m



Town planning & strategy
www.plannedfocus.com.au
Kanella Hope Pty Ltd
ACN: 630 552 466

LOCATION PLAN

Lot 6 Sand Pits Road, Crooked Brook

Plan No: 18-0007-FI-01A

Date: 06/10/2019
Rev: A
Scale: A1 @1:2 500, A3 @ 1:5 000
Co-ords: MGA 50, GDA 94
Aerial: N/A



1.3.2 Planning strategies

The Western Australian Planning Commission endorsed the Shire of Dardanup Local Planning Strategy in May 2015. The Strategy recommends that the land located within the Crooked Brook/ Dardanup West Structure Plan be identified as a 'Special Control Area' for future Structure Planning.

The Strategy further recommends, including provisions within LPS9 to allow for intensification of existing areas by way of subdivision. The inclusion of a Structure Plan as part of this report is consistent with the future requirements of this area.

1.3.3 Planning policies

Development Policy 19: Dardanup West/Crooked Brook Area – Provision of Foreshore Facilities Developer Contribution Policy

The Western Australian Planning Commission approved The Shire of Dardanup Development Policy 19 in 2007. The plan relates to further development of smallholding (rural residential) lots within the Dardanup West/Crooked Brook Structure Plan area. The objective of this planning policy is to ensure that the future development of foreshore facilities in the area covered by the plan is sufficiently funded via developer contributions to not place added burden on the ratepayers.

At the time of subdivision, the Western Australian Planning Commission is likely to impose a condition requiring a contribution towards the upgrading and construction of foreshore facilities as per requirements of this policy.

Development Policy 20: Local Biodiversity

The Shire of Dardanup *Local Biodiversity* Policy was endorsed in 2011. The Policy aims to preserve significant areas of remnant vegetation, significant wetlands and waterways as well as key biodiversity corridors for future generations.

Remnant vegetation on site has been identified for protection and enhancement as part of this Structure Plan. This is considered consistent with the policy objectives and specific requirements of the Crooked Brook/Dardanup West requirements, which include:

- Ensure that natural areas are not fragmented by subdivision (new lot boundaries do not intersect areas of native vegetation or intact wetlands)
- New subdivision to use WSUD principles as part of subdivision conditions

The measures proposed as part of this Structure Plan and the supporting documentation ensures that the vegetation and wetland located on site is well protected and in areas enhanced.

1.3.4 Other approvals and decisions

The Dardanup Small Holdings Structure Plan was endorsed by the Shire of Dardanup on February 9, 2006 and subsequently endorsed by the Western Australian Planning Commission on August 7, 2007. This Plan is also referred to as the Dardanup Small Holdings Structure Plan.

The subject land is included within a classification, which includes the notation

This land has main drains and a mosaic of landforms that provide opportunities for lots with a range of lot sizes. Each proposal will be treated on its merits but in general, where there is a mix of landform types then lots should be a minimum of 1 hectare and an average of 2 hectares. Revegetation conditions will apply.

The eastern portion of the subject lot is currently excluded from the Structure Plan area; however, discussions with the Shire of Dardanup have indicated that they would support a rezoning over the entire property to enable development of the site.

The Structure Plan is consistent with the requirements of the Dardanup Small Holdings Structure Plan.

1.4 Pre lodgement consultation

Pre-lodgement consultation has occurred over the Structure Plan itself (with the Shire and Department of Parks and Wildlife), as well as during the preparation and preliminary assessment of the various technical reports.

2 SITE CONDITIONS AND CONSTRAINTS

2.1 Biodiversity and natural area assets

2.1.1 Flora and vegetation assessment

An Environmental Characteristics Report has been prepared over the site and can be read in full in *Appendix B*.

With the exception of the vegetation located along the southwestern boundary of the property, the understory across the site is almost completely composed of pasture/weed species. The understory within this southwestern portion has been protected from grazing by domestic stock and is considerably thicker than the rest of the site. The understory is still dominated by grass and pasture species, however there is an isolated clump of *Anigozanthos flavidus* (Tall kangaroo paw) and a small area of *Caladenia flava* (Cowslip orchid).

The over storey of the entire site is made up primarily of *Agonis flexuosa* (WA Peppermint), *Banksia attenuate* (Slender Banksia), *Eucalyptus marginata* (Jarrah) and *Corymbia callophylla* (Marri). There are a few isolated *Melaleuca raphiophylla* (Swamp Paperbark) trees on the edge of the western wetland.

Wherever possible, retention of the existing native vegetation has been sought. To achieve this, the lot layout has been designed to minimise locating fences/firebreaks through the bushland.

Some areas within the subject land may warrant revegetation with native vegetation. Any revegetation should carefully consider the increased fire risk this may pose. Revegetation methods are further detailed in *Section 4.2* and *Appendix C* of this report.

2.2 Landform and soils

The site is composed of a mix of sand dunes and sand plains. Along much of the northern boundary of the site is a low sand rise that sits approximately 3 to 8 meters above the surrounding flats. The sand dune peaks at 32m AHD on its western edge towards the east.

Two more small sand rises extend from this high point south, continuing over the southern boundary. Within this area, there is a trapped wetland system, and another surface water body that is now drained by a rural drain. This wetland also has a small-excavated waterhole on its northeastern edge. This area is shown on *Figure 1* as the 'central' sand dune and wetland complex of *Appendix C*.

The other major sand ridge occurs in the south west of the site, rising to 35m AHD. This has been termed the 'southern sand dune'.

Between the sand ridges stretches gently sloping sand plains that exhibit groundwater close to the surface. Rural drains intersect the plain areas, transporting groundwater and surface water off the site to the west and another draining the eastern edge of the site southward. The two plains are called the 'western' and 'eastern plains'.

2.3 Groundwater and Drainage

The Groundwater Investigation Report has been undertaken to determine the annual maximum groundwater levels likely to be present within Lot 6. A full copy of this report can be found in *Appendix D*, the information contained within this report is to be used to support the planning and engineering for the development of the site to Small Holdings lots. This includes determining areas where there is adequate separation to groundwater for onsite effluent disposal.

There are two defined wetlands on site with seasonal surface water present in them. This surface water is directly linked to the groundwater table and is effectively the same. A rural drain intersects the western wetland, transporting water from this wetland, and the majority of the western portion of the site to the western boundary of the site. This drain effectively controls the groundwater level in this portion, as it continuously removes excess surface water and groundwater when it either reaches the surface, or discharges via the soil profile directly into the drain.

The eastern wetland is effectively trapped by the surrounding dune system. Groundwater within this wetland moves laterally and horizontally through the highly porous sand. Another drain is located near the eastern boundary of the site. This controls groundwater rise within the eastern portion of the site by removing water and channelling it through to the southern boundary and off site.

Due to the drainage system controlling the groundwater and that the test pits were dug after normal winter rains (September 5th 2014), when groundwater is likely to be at its highest, there is a high level of confidence that the depth to groundwater shown in the attached Ground Water Report are representative of the annual maximum. This allows the data to be used for determining suitable areas for onsite effluent disposal, fill for house pads (as necessary) and road construction.

To be slightly conservative the areas recommended for effluent disposal are set at 0.6m of depth of groundwater (0.5m minimum needed).

As part of the preparation of the lot layout, this groundwater information was taken into account. All lots shown have areas with at least 0.6m of separation that may be used for effluent disposal, after suitable treatment.

2.4 Fire risk and access assessment

A preliminary fire hazard assessment was prepared over the subject site relating to the vegetation (fuel) characteristics on the undeveloped site. Full details can be found in *Appendix E*.

Consideration of the overall fire danger or threat for the proposed development takes into consideration the context of the subject land, the existing vegetation, the proposed revegetation and landscaping, the risk of a bush fire and the likely consequences of this.

The bush fire hazard rating for the subject site is generally 'moderate' with the vegetated areas having an 'extreme' hazard rating. In areas with a 'moderate' hazard, rating development is required to comply with the Bushfire Protection Criteria.

In addition to the Fire Risk Assessment, advice was sought from Strategen in September 2016, and then revised in 2018 and 2020 (due to structure plan layout revisions), specifically regarding the current restricted access to the site, and potential fire risks.

The assessment identified that a bushfire approaching the subject site from the south would presumably be the worst-case bushfire scenario for this site. This is due to the extent of bushland areas within rural properties to the south and that under standard weather conditions in summer, the likely prevailing winds in the area are from the south and southeast in the morning and southwest, south and southeast in the afternoon (BoM 2016). In the event of a bushfire under these conditions, vehicular access to the north will provide the safest egress option.

Recent updates to the Structure Plan have removed the requirement for the original central cul-de-sac access, which was not supported by the Department of Fire and Emergency Services. This has been replaced with a single loop road off Sand Pits Road and the proposed gravel extension of Sand Pits Road to Poad Road. The development is now considered compliant with two access/egress options available to the development, and is further detailed as part of the Section 3.6 of this report and *Appendix E*.

The Crooked Brook/Dardanup West Structure Plan also identifies future road networks to the west of Sand Pits Road, which connect through to the existing Dardanup Road West. These roads will be developed as the balance of the Structure Plan area is developed. These future road linkages will provide additional entry/exit paths for residents.

2.5 Wetland and revegetation

A Wetland Assessment and Revegetation Report has been undertaken to determine the true wetland edge of the area identified as Resource Enhancement – Damp land 1774, on the Swan Coastal Plain Geomorphic Wetland data set, within Lot 6. A full copy of this report can be found in *Appendix C*.

Due to a discrepancy between the mapping and actual site conditions, a meeting was held with the Department of Parks and Wildlife (DPaW) in July 2014 to discuss the site issues. This discussion considered the highly degraded state of the wetland and what options for enhancement of the wetland should be considered as part of any future development. The main conclusions reached were:

Determining the top of the annual maximum water line of the wetland within the Resource Enhancement Wetland area will be sufficient for determining the real wetland boundary worth of protection

A simple revegetation program around this delineated edge, consisting of trees and shrubs in 2 or 3 lines, that links back the existing bush will be sufficient as a revegetation program

Based on the advice from DPaW, the entire edge of the water line around the subject wetland was delineated using a GPS. The recorded points are identified on *Figure 3 - Environmental Plan*.

The proposed lot layout for the development of the subject land has been configured so that there is minimal disturbance possible to the areas of existing native vegetation, while also providing each lot with areas of adequate separation to the groundwater. The lot layout has been designed so that there is no fence within the wetland boundary.

The proposed revegetation will provide:

- Delineation of the wetland edge to assist with minimising disturbance to it
- Increase native wetland vegetation

- Increase available wetland fauna habitat and provide new fauna movement paths
- Increase aesthetics of the site

The revegetation is also to be undertaken in a way that does not appreciably increase the fire risk to the proposed dwellings. Furthermore, the revegetation will be predominately trees and shrubs, as this will minimise the long-term maintenance, compared to controlling weeds within sedges and rushes.

To achieve the above the proposed revegetation area is shown on the Wetland Management Plan of Appendix C. In general, a double line of vegetation around the wetland is proposed. Due to the species proposed for this band of vegetation it is estimated that it will have on average a canopy width of 10m at maturity.

To minimise fire risk to potential buildings, the band of vegetation becomes discontinuous on the western side, where the vegetation comes within 30m of proposed building areas. In this area, the vegetation will have a break of 20m, so that it meets a 'separation vegetation area' requirement under the fire regulations. To compensate for the breaks in vegetation, two infill areas are proposed for revegetation, with significantly more area of vegetation planted in the infill zones, then would be planted within the fire gap areas. These infill areas will also increase the linkages between existing bushland areas.

2.6 Heritage

A search of the Department of Aboriginal Affairs Heritage Inquiry System did not reveal any registered sites of indigenous heritage value within the locality of the subject land.

There are also no known sites of non-aboriginal heritage significance present on the subject land.

2.7 Context and other land use constraints and opportunities

The adjoining land to the south, west (across from Sand Pits Road) and east is predominantly cleared grazing land zoned 'General Farming'.

To the north lies a recent Small Holdings development, consistent to the development proposed as part of this Structure Plan.

Appropriate buffers have been considered as part of the Structure Plan concerning the surrounding land zones.

2.7.1 Title Covenant

Approximately 2.9hectares of the subject site (as identified on the Structure Plan) is held within a covenant with the National Trust of Western Australia, as listed on the Certificate of Title. In order to protect remnant vegetation from grazing stock or future uses the then owners of the land established this covenant.

Due to the conservation values of the covenanted area, subdivision of this part of the land is not generally supported, therefore to ensure the continuity of the covenant and protection of the remnant vegetation the area has been solely placed within one of the proposed lots. The title for this lot will have the covenant requirements transferred to ensure its ongoing protection.



- ### LEGEND
- EXISTING CADASTRE
 - ▲ WETLAND EXTENT
 - - - CONVENANT AREA
 - - - FIRE BUFFER TO BUILDING ENVELOPE (14m)
 - PROPOSED CADASTRE
 - BUILDING ENVELOPE
 - - - EDGE OF VEGETATION
 - - - 27m VEGETATION SETBACK
 - ▨ WETLAND VEGETATION (10m WIDE 2 ROWS)
 - ▨ INFILL VEGETATION
 - ▭ SURFACE WETLANDS
 - - - SUBJECT LAND
 - PROPOSED SEALED ROAD
 - PROPOSED GRAVEL ROAD
 - PROPOSED WATER TANK



3 LAND USE AND SUBDIVISION REQUIREMENTS

The landowners are looking to pursue development within the subject property. The proposed zoning of the subject land to 'Small Holdings' aims to facilitate the future subdivision of the land, which is in keeping with neighbouring properties and the intentions of the Crooked Brook/Dardanup West Structure Plan.

The Structure Plan report is supported by the preparation of rezoning documents, supporting technical studies and the Structure Plan (refer *Figure One*) which has been prepared in accordance with the requirements of Clause 3.14 and in conjunction with the additional requirements identified in Appendix VIII, Area No.14 of the Scheme.

The subject site is not currently included within Area No.14 of Appendix VIII of the Scheme, although advice from the Shire of Dardanup has indicated that due to its location nearby, site similarities and its identification within the Crooked Brook/Dardanup West Structure Plan the provisions of Area No.14 are relevant for this site.

3.1 Design principles

The subdivision design is based on the following principles:

- A response to the topography and land capabilities ensuring each lot has a suitable area of land on which to construct a dwelling and accommodate onsite effluent disposal;
- Recognising the current trend towards rural residential lots in the order of 1 hectare on the basis that where land is capable of accommodating this lots size it is a more efficient use of the land; and
- Contributing to the revegetation and protection of wetlands and the wider landscape.

3.2 Land use

This Small Holdings development proposes 18 lots, ranging in size that responds to the landscape of the site and conforms to the existing planning framework (refer *Figure 1: Structure Plan*).

3.3 Lot yield

It is proposed that 18 lots be created with areas ranging generally from 1ha to 15ha, with the majority of the lots approximately 1.1ha in area. The three larger lots have been created in response to the onsite vegetation and environmental characteristics (refer *Figure 1: Structure Plan*).

All lots have been designed to ensure suitable areas for a dwelling and associated outbuildings and onsite effluent disposal systems. The design of the lots has also taken into account the existing vegetation and topography to ensure no unnecessary clearing will be required.

3.4 Movement networks

Access to the proposed development will be by way of a repositioned Sand Pits Road reserve and cul de sac leading into a Private Driveway.

The internal subdivisional road will be located within a 20m reserve and constructed as per Shire standards. The battle-axe configurations to come lots meet Bushfire and Shire requirements for minimum widths.

The extension of Sand Pits Road to Poad Road will be approximately 1km in length and be of gravel standard, similar to that of Poad Road, compliant with the standards of the Shire of Dardanup.

3.5 Water management and drainage

As is common for many rural and rural residential subdivisions, it is proposed that there will be an open swale drain constructed either side of the central subdivision road. Further design and details will be undertaken to determine whether a small drainage basin will be required as part of the detailed design stage.

3.6 Bushfire management

Strategen prepared a Bushfire Management Plan (BMP) in April 2017, (which was further revised 2018 and then 2020 following public advertising and agency discussions about the Structure Plan), over the subject land. The project area is designated as bushfire prone on the *WA Map of Bush Fire Prone Areas* (DFES 2017) due to the extent of on-site and adjacent vegetation. The BMP has therefore been prepared to support the Structure Plan and related Scheme Amendment, in accordance with *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7).

The purpose of the BMP is to provide guidance on how to plan for and manage the bushfire risk to the future life, property and environmental assets of the project area through integration of a range of bushfire management measures into development design and construction.

As classified vegetation has been identified within 100m of the proposed lots, BAL assessment and application of AS 3959 is required to inform future building design and construction requirements.

Strategen has identified the minimum separation distances between future buildings and the classified vegetation, with the minimum separation distances for a BAL-29 rating or lower achievable within all proposed lots.

The width of each BAL contour in *Appendix E* is set in accordance with AS 3959 and reflects the relevant BAL rating applicable to the respective Class A forest, Class B woodland, Class D scrub or Class G grassland vegetation types situated on the relevant slope category (refer to Table 1 of Appendix E).

Implementation of this BMP is expected to meet the following objectives of SPP 3.7:

- 5.1 *Avoid any increase in the threat of bushfire to people, property and infrastructure. The preservation of life and the management of bushfire impact are paramount.*
- 5.2 *Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process.*
- 5.3 *Ensure that higher order strategic planning documents, strategic planning proposals, subdivision and development applications take into account bushfire protection requirements and include specified bushfire protection measures.*
- 5.4 *Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change.*

The bushfire management measures, as outlined in Section 3 of the BMP report, have been devised for the proposed development in accordance with acceptable solutions of the Guidelines to meet compliance with bushfire protection criteria. An 'acceptable solutions' assessment is provided in Table 3 of the BMP to assess the proposed bushfire management measures against each bushfire protection criteria in accordance with the Guidelines and demonstrate that the measures proposed meet the intent of each element of the bushfire protection criteria.

3.7 Servicing

Power and Communications

The subject site is not currently connected to a power or communications network.

There is a High Voltage (1kV – 33kV) Overhead Power line located within the existing road reserve of Sand Pits road along the western boundary of the subject site. A Lot Voltage power line (< 1kV) is located just to the North of the subject site, it is understood that the subject site can easily be serviced with power and communications through connection to these overhead power lines.

Water Supply

The subject land is not connected to a mains supply of water. It is proposed that the developed site will be catered for using onsite water tanks and bores.

The use of water tanks within the Small Holding zone is considered an acceptable alternative should a reticulated water supply not be within close proximity for connection. It will be a requirement of subdivision that all lots are required to have a minimum 90,000-litre roof water tank installed, or some other approved supply of potable water of no less capacity.

On-Site Effluent Disposal

The subject land is currently unsewered. The closest sewer infrastructure is located within the Dardanup townsite approximately 3km away.

Due to the rural nature of the development and similar developments within the area, it is proposed that on-site effluent disposal units are used to service each lot. These units will be required to meet the specifications of the Shire of Dardanup and Department of Health.

3.8 Building exclusion zones

The Structure Plan identifies 'Building Exclusion Zones' within all lots where no development can occur.

The 'Building Exclusion Zone' affects all of the proposed lots. This buffer relates to the area where no buildings or on-site effluent disposal systems are permitted to be constructed. The exclusion zones for this development are in relation to the setbacks from the existing vegetation on site and are in accordance with the requirements of the *Planning for Bush Fire Protection Guidelines*.

In addition to the Building Exclusion zones, all buildings, structures and on-site effluent disposal systems on each lot shall conform (where possible) with the minimum setbacks as follows:

- 20 metres from a road;
- 50 metres from line edge of any manmade water bodies or waterway;
- 10 metres from all side boundaries

An application to modify these building envelopes will be subject to the Shire's discretion for approval.

4 CONCLUSION

In conclusion, it is hoped that the Structure Plan is embraced by the decision-makers and the community as a balanced and sustainable guide to the development of this property and provides a constant reference for achieving the vision for the Dardanup Small Holdings Structure Plan.