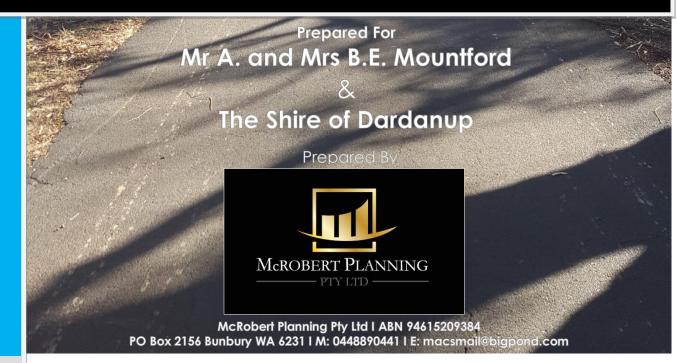


Local Structure Plan Lot 23 Recreation Road, Dardanup

(April 2019) Ref: 17-08-MOU



Endorsement Page

This Structure Plan is prepared under the provisions of The Shire of Dardanup Local Planning Scheme No. 3

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

| 12 January 2021 | Date |
|---|---|
| Signed for and on behalf of the Western A | Australian Planning Commission: |
| an officer of the Commission duly authori 16 of the Planning and Development Act | — ised by the Commission pursuant to section 2005 for that purpose, in the presence of: |
| ALS. | _ Witness |
| 12 January 2021 | _ Date |
| 12 January 2031 | _ Date of Expiry |

Table of Amendments

| Amendment No. | Summary of the Amendment | Amendment Type (major or minor) | Date Approved by WAPC |
|------------------|--------------------------|------------------------------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Disclaimer:

This document has been prepared solely for Mr A. and Mrs B.E. Mountford (the Client). It is assumed that all information and documents relied upon to compile this document are complete, accurate and upto-date. Where McRobert Planning Pty Ltd has obtained information from a government register or database, it assumes the information is accurate. No responsibility is accepted to any third party who may come into possession of this document in whatever manner and who may use or rely on the whole or any part of this document. Although care has been taken on the compilation of this document, McRobert Planning Pty Ltd disclaims any responsibility for any errors or omissions. The right is reserved to change this document at any time. The information contained in this document has been compiled in good faith and liability is expressly disclaimed by McRobert Planning Pty Ltd for any loss or damage which may be sustained by any persons and/or entity acting on this document.

Copyright:

Any use or copying of this document in part or whole without first obtaining the written consent of McRobert Planning Pty Ltd constitutes an infringement of copyright. This document, including the information, designs and concepts contained herein, remains the property of McRobert Planning Pty Ltd and it may only be used in accordance with the Terms of Appointment for which it was commissioned.

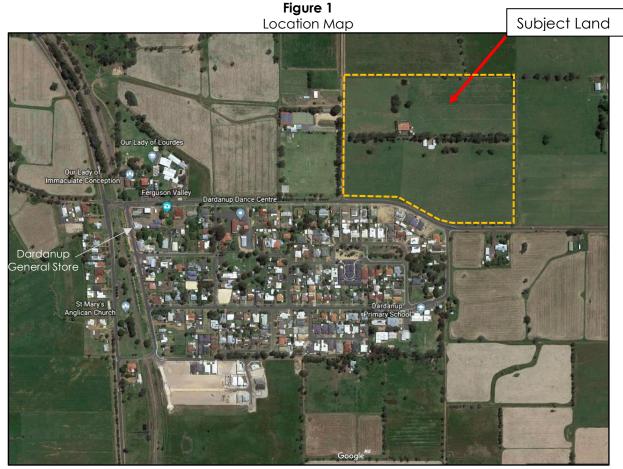


Executive Summary

The subject land is described as Lot 23 Recreation Road, Dardanup and is located at the north-eastern corner of the intersection of Ferguson and Recreation Roads near the Dardanup town centre. The land is located 650 metres from the Dardanup General Store (refer to **Figure 1**) and approximately 16 kilometres (by road) south-east of the Bunbury Central Business District.

According to Landgate information, Lot 23 has an area of 16.477 hectares. The Structure Plan area is bounded by Recreation Road to the west, Ferguson Road to the south, Lot 3 to the east and Lot 5 to the north.

The subject land is owned by Mr Allen Mountford and Mrs Beverley Mountford.



Source: Google Maps - www.google.com.au/maps

The Local Structure Plan has been prepared by McRobert Planning Pty Ltd on behalf of the landowners and has been formulated using the Structure Plan Framework as released by the Western Australian Planning Commission in August 2015.

The Structure Plan incorporates 1.0275 hectares of Public Open Space with a 1.77% cash-in-lieu equivalent in recognition of the very close proximity of the subject land to the Dardanup Recreation Ground. The local structure plan allows for a 2520m² civic and community site 'Local Reserve for Emergency Services' which the Shire intends to seek free of cost in lieu of the equivalent area of land being offset against the requirement for public open space.

In addition, the local structure plan allows for a 10 metre (3239m²) widening of Recreation Road.



The Local Structure Plan is intended to facilitate residential development at a range of densities from R20 to R40. Once developed, the Local Structure Plan is estimated to be capable of supporting approximately 171 lots, 180 dwellings and an overall estimated population of 558 people.

The local structure plan area was the subject of Amendment No 201 to the Shire of Dardanup Local Planning Scheme No 3 which took effect upon being published in the Government Gazette on the 31st of August 2018. Amendment No 201 rezoned Lot 23 Recreation Road to the 'Development' zone to facilitate the formulation of the local structure plan the subject of this report.

Amendment No 201 and the 'Lot 23 Recreation Road Local Structure Plan' are both in accordance with the land's demonstrated capability to accommodate townsite expansion within each of:

- 1. The Greater Bunbury Region Scheme;
- 2. The Shire of Dardanup Local Planning Strategy; and,
- 3. The Dardanup Townsite Expansion Strategy.

The Structure Plan embraces the principles of the WAPC's Liveable Neighbourhoods and seeks to:

- provide a walkable and permeable layout;
- foster a strong sense of community and identity;
- provide an inter-connected network of streets to provide for safe and efficient walking, cycling and driving experiences;
- ensure active street/land use interfaces maximising surveillance opportunities;
- provide a variety of lot sizes and housing types to cater for a range in housing choice and lifestyle opportunities;
- provide an integrated approach to the design of open space and urban water management;
- promote opportunities for affordable housing; and,
- ensure the efficient use of the developable portions of the structure plan area.

The structure plan is supported by:

- 1. an Engineering and Servicing Review report prepared by Pippin Civil Engineering (**Technical Appendix 1**);
- 2. a 'Transport Impact Assessment Report' prepared by DVC Donald Veal Consultants (refer to **Technical Appendix 2**); and,
- 3. an approved Local Water Management Strategy prepared by Pippin Civil Engineering (**Technical Appendix 3**)

Table 1 below provides a summary of the key structure plan statistics and planning outcomes.



Table 1Summary of Key Statistics & Planning Outcomes

| Item | Data | Structure Plan Ref (section no.) |
|--|---|--|
| Total area covered by the Structure Plan | 16.477ha | Part 1 Section 1.0 & Part 2 Section 1.2.2 |
| Area of each land use proposed: | Hectares Lot Yield | |
| Residential R20 R30 R40 Public Open Space Drainage Sewer Pump Station 10 metre widening of Recreation Road Civic & Community Site | 9.7268 163 0.2429 7 0.2520 10 1.0275 0.5250 0.0750 0.3239 0.2520 | Table 1 & Table 2 (Executive Summary & Part 1 Section 4.3) |
| Total Estimated Lot Yield | 171 | Table 1 & Table 2 |
| Estimated Number of Dwellings | 180 | Table 1 & Table 2 |
| Estimated Residential Site Density | 10.92 dwellings per hectare | Table 1 & Table 2 |
| Estimated Population | 558 persons | Table 1 & Table 2 |
| Number of High Schools | 0 | |
| Number of Primary Schools | 0 | |
| Estimated commercial floor space | 0m2 nett lettable area | |
| Estimated area and percentage of public open space given over to: • Local Parks • Civic & Community Purpose Site to be considered as POS for purposes of calculating POS provision as recommended, and agreed to, by the Shire of Dardanup Estimated number and area of natural area and biodiversity assets | 1.0275 hectares 0.2520 hectares 1.2795 hectares (8.23%) 2 parks 1.77% proposed as cash-in-lieu of POS | Table 1 & Table 2 |

Notes: 1. Estimated population based on 3.1 persons/dwelling.

2. Estimated lot yields and numbers of dwellings subject to detailed design and survey.

Table of Contents

| Section | on | | Title | Page No |
|---------|---------|----------------|---|------------|
| Exec | utive | Summo | ary | 3 |
| Part 1 | 1 – Im | pleme | ntation | 8 |
| 1.0 | | ture Plar | | 9 |
| 2.0 | Oper | | TAICU | 11 |
| 3.0 | Stagi | | | 11 |
| 4.0 | | | and Development Requirements | 11 |
| 4.0 | 4.1 | | Use Permissibility | 11 |
| | 4.2 | | ential Density Target | 11 |
| | 4.3 | | c Open Space | 12 |
| Part 2 | 2 – Exi | olanato | ory Section | 13 |
| 1.0 | _ | | kground | 14 |
| | 1.1 | | luction & Purpose | 14 |
| | 1.2 | | Description | 14 |
| | | 1.2.1 | Location | 14 |
| | | 1.2.2 | Area & Land Use | 14 |
| | | 1.2.3 | Legal Description & Ownership | 14 |
| | 1.3 | Plann | ing Framework | 15 |
| | | 1.3.1 | Zoning | 15 |
| | | | 1.3.1.1 Greater Bunbury Region Scheme (GBRS) | 15 |
| | | | 1.3.1.2 Shire of Dardanup Local Planning Scheme No. 3 | 1 <i>7</i> |
| | | 1.3.2 | Planning Strategies | 18 |
| | | | 1.3.2.1 Greater Bunbury Strategy 2013 and the Greater | |
| | | | Bunbury Sub-regional Structure Plan 2013 | 18 |
| | | | 1.3.2.2 Shire of Dardanup Local Planning Strategy | 18 |
| | | | 1.3.2.3 Dardanup Townsite Expansion Strategy | 20 |
| | | 1.3.3 | Planning Policies | 20 |
| | | | 1.3.3.1 Liveable Neighbourhoods | 20 |
| | | | 1.3.3.2 State Planning Policy 2.5 'Rural Planning' | 22 |
| | 1.4 | | dgement Consultation | 22 |
| 2.0 | | | ns and Constraints | 23 |
| | 2.1 | | form, Soils & Geotechnical Investigations | 23 |
| | 2.2 | | Sulphate Soils (ASS) | 23 |
| | 2.3 | | g Building Infrastructure | 24 |
| | 2.4 | | Dumping & Contamination | 24 |
| | 2.5 | | nd Water and Surface Water | 24 |
| | | 2.5.1 | Ground Water Surface Water Bodies | 25 |
| | | 2.5.2 2.5.3 | | 25 26 |
| | 2.6 | | Irrigation Channel | 26 26 |
| | 2.0 | 2.6.1 | lopment Siteworks & Infrastructure Earthworks | 26 |
| | | 2.6.2 | Retaining Walls | 27 |
| | | 2.6.3 | Landscaping | 27 |
| | 2.7 | | re Hazard | 27 |
| | 2.7 | | tructure & Servicing | 27 |
| | ۷.0 | 2.8.1 | Movement Networks | 27 |
| | | 2.8.2 | Stormwater Management | 28 |
| | | 2.8.3 | Groundwater Management | 29 |
| | | 2.8.4 | Electrical Reticulation | 30 |
| | | | | |

Local Structure Plan –



30

| 2.9 | 2.8.6 Sewerage Reticulation 2.8.7 Water Conservation 2.8.8 Telecommunications 2.8.9 Reticulated Gas Context and Other Land Use Constraints and Opportunities | 30 31 32 32 32 |
|--|---|--|
| List of Figu | res, Tables, Attachments & Technical Appendices | |
| Figures Figure 1 Figure 2 Figure 3 Figure 4 Figure 5 Figure 6 Figure 7 Figure 8 Figure 9 Figure 10 Figure 11 Figure 12 | Location Map Lot 23 Recreation Road Local Structure Plan Area Lot 23 Recreation Road Local Structure Plan Greater Bunbury Region Scheme – Scheme Map Extract Extract from Strategic Agricultural Resource Policy Area Map Extract from Strategic Minerals and Basic Raw Materials Resource Policy Area Map Shire of Dardanup Local Planning Scheme No.3 Scheme Map Extract – Existing Zoning Extract from Greater Bunbury Sub-regional Structure Plan 2013 Shire of Dardanup Local Planning Strategy Map 2.3 Dardanup Townsite Expansion Strategy Map (as endorsed) Acid Sulfate Soil map Opportunities and Constraints Map | 3 9 10 15 16 16 17 18 19 21 24 34 |
| Tables Table 1 Table 2 Table 3 Table 4 | Summary of Key Statistics & Planning Outcomes Calculation of Gross Subdivisible Area & Public Open Space Provision Land Ownership & Lot Details Pre-lodgement Consultation | 5 12 14 21 |
| Attachments Attachment 10 Attachment 11 Attachment 2 Attachment 3 | | 34 36 37 39 41 |

Technical Appendices

2.8.5

Water Supply

| rechnical Appendix 1 | Engineering and servicing Review report |
|-----------------------|---|
| Technical Appendix 2a | Transport Impact Assessment Report |
| Technical Appendix 2b | Transport Impact Assessment Report – Technical Note 1 |
| Technical Appendix 3 | Local Water Management Strategy |



Part One IMPLEMENTATION

1.0 Structure Plan Area

The boundaries of the structure plan area include that portion of the Local Government district of the Shire of Dardanup as shown on **Figure 2** – Lot 23 Recreation Road Local Structure Plan Area.

The subject land measures 16.477 hectares in area and is located at the north-eastern corner of the intersection of Ferguson and Recreation Roads near the Dardanup town centre. The land is located 650 metres from the Dardanup General Store (refer to Figure 1).

The structure plan area is bounded by residential development to the south, a recreation reserve to the west and rural holdings to the north, east and south-east.

The land has frontage to Recreation Road on its western boundary and Ferguson Road along its southern boundary. Ferguson Road provides a direct connection to the Dardanup town centre.



Figure 2
Lot 23 Recreation Road Local Structure Plan Area

Source: Landgate Locate V4 website - https://maps.slip.wa.gov.au/landgate/locate/

The structure plan area is contained within the inner edge of the black line (highlighted in orange) shown on the structure plan map (refer to **Figure 3** and **Attachment 1a**).

The land is owned by Mr Allen Mountford and Mrs Beverley Mountford.

The Structure Plan proposes a range of residential densities from R20 to R40. In addition, the structure plan makes provision for:





Figure 3
Lot 23 Recreation Road Local Structure Plan





- 3 areas for drainage;
- A sewer pump station site;
- An inter-connected grid network of roads;
- 1 public access way;
- A 'Civic and Community' site to be utilised as a 'Local Reserve for Emergency Services'
 with direct access onto Recreation Road to be provided in lieu of the equivalent area
 of land being offset against the requirement for public open space; and
- 1.0275 hectares of local open space with a 1.77% cash-in-lieu equivalent in recognition of the subject land's close proximity to the Dardanup Recreation Ground.

2.0 Operation

In accordance with the Planning and Development (Local Planning Schemes) Regulations 2015, this structure plan shall come into operation on the date it is approved by the Western Australian Planning Commission.

The Structure Plan shall be required to be approved by the Western Australian Planning Commission (WAPC) prior to the approval of any application for subdivision and/or planning approval, and such approvals shall comply with the relevant approved Structure Plan.

3.0 Staging

The proposed development is considered likely to be constructed in a number of stages (yet to be determined). It is anticipated that the landowners will commence with an application for subdivision approval (and implementation thereof) as soon as possible following endorsement of this Structure Plan.

4.0 Subdivision and Development Requirements

The Lot 23 Recreation Road Local Structure Plan Map (refer to Figure 3 and Attachment 1a and the 'Lot 23 Recreation Road Local Structure Plan Subdivision and Development Requirements' (refer to **Attachment 1b**) outline the proposed 'Residential' portions of the land and the associated density codings to be applied to those areas. In addition, the structure plan identifies the areas proposed to be reserved (e.g. recreation, sewer pump station and civic and community) and outlines the relevant land use notes applicable to the structure plan area.

4.1 Land Use Permissibility

The Structure Plan will be used by the Shire of Dardanup and the Western Australian Planning Commission respectively, as a guide for the assessment of applications for planning approval under the Shire of Dardanup Town Planning Scheme No 3 and applications for approval to subdivide land under the provisions of Part 10 of the Planning and Development Act 2005.

The subdivision of land within the structure plan area shall require further assessment and any approvals shall be conditioned with respect to the development control of issues of local and regional importance, additional infrastructure requirements to support the scale and nature of proposed development, and more detailed local planning considerations.

The deemed provisions of the Regulations will override any operational scheme provisions that seek to give a structure plan the force and effect of a scheme.

Amendment No 201 to the Shire of Dardanup Town Planning Scheme No 3 has resulted in the rezoning of the land to the 'Development' zone. Accordingly, the land is subject to the provisions relating to the 'Development' zone within Clause 3.15 of Scheme No 3.

4.2 Residential Density Target

The Structure Plan establishes a residential site density target of 10.92 dwellings per hectare and a minimum of 180 dwellings within the structure plan area. This compares with the density



target of 15 dwellings per gross hectare established by the Department of Planning within the Greater Bunbury Strategy. Attachment 1 and Figure 3 define the residential densities that apply to specific areas within the Structure Plan.

The comparatively low residential density target associated with the Lot 23 Recreation Road Local Structure Plan largely results from the necessity to provide a buffer to the adjoining rural land and Harvey Water irrigation channel.

4.3 Public Open Space

The provision of public open space (POS) is to be achieved in accordance with the WAPC's Liveable Neighbourhoods. Public Open Space is to be provided generally in accordance with **Table 2** and Figure 3.

Table 2
Calculation of Gross Subdivisible Area & Public Open Space Provision (refer to Figure 3)

| Item | Data |
|---|--------------------------------------|
| Total area covered by the Structure Plan | 16.4770ha |
| Area of each land use proposed: | |
| R20 | 9.7268 ha |
| R30 | 0.2429 ha |
| R40 | 0.2520 ha |
| POS | 1.0275 ha |
| Sewer Pump Station | 0.0750ha |
| Drainage | 0.5250 ha |
| Estimated Lot Yield | 171 |
| Estimated No of Dwellings | 180 |
| Estimated Residential site density | 10.92 dwellings/ha |
| Estimated residential site density (excluding POS and 10 metre widening of Recreation Road) | 11.90 dwellings/ha |
| Estimated population | 558 people |
| Estimated % of Public Open Space: | 8.23% with 1.77% cash-in-lieu of POS |
| Estimated area and number of parks | |
| Neighbourhood parks | 1.0275ha 2 parks |

Part Two EXPLANATORY SECTION



1.0 Planning Background

1.1 Introduction & Purpose

The purpose of the Structure Plan is to provide for the orderly and proper planning of the Dardanup urban area in accordance with the State Planning Framework and the Shire of Dardanup Local Planning Policy Framework.

The intent of this Structure Plan is to guide the subdivision, development and infrastructure servicing of the Lot 23 Recreation Road, Dardanup Local Structure Plan Area.

1.2 Land Description

1.2.1 Location

The subject land is described as Lot 23 Recreation Road, Dardanup and is located at the north-eastern corner of the intersection of Ferguson and Recreation Roads near the Dardanup town centre.

The land is located 650 metres from the Dardanup General Store.

1.2.2 Area & Land Use

According to Landgate information, Lot 23 has an area of 16.477 hectares.

The subject land contains a residential dwelling and associated sheds and outbuildings. The land has been predominantly cleared, is irrigated and is currently used for grazing.

A row of introduced trees (Eucalypts) parallel the central driveway. A small number of trees are located across the subject land.

A small dam is located near the northern boundary of Lot 23 and an existing drain is situated inside the eastern boundary.

To the west is the Dardanup Recreation Ground including car parking area, multi-use hard courts, tennis courts, cricket oval, pitch and practice nets, skate park, club rooms and associated sheds.

To the south-east, north-west, north and east, land is used for agricultural pursuits. Reference to aerial photography shows that irrigation channels are located along the northern and eastern boundaries within the adjoining land. Portion of the irrigation channel is currently located within the north-western corner of the subject land.

To the south and south-west, land has been developed for residential use.

1.2.3 Legal Description & Ownership

The legal description and ownership details of the subject land are summarised in **Table 3** and a copy of the Certificate of Title is provided in **Attachment 2**.

Table 3Land Ownership & Lot Details

| Lot Number | Ownership | Certificate of Title | Lot Area |
|------------|--|----------------------|----------|
| 23 | Mr Allen Mountford and Mrs Beverley Mountford | 1783/992 | 16.477ha |
| | | Total | 16.477ha |

Source: landgate.wa.gov.au



1.3 Planning Framework

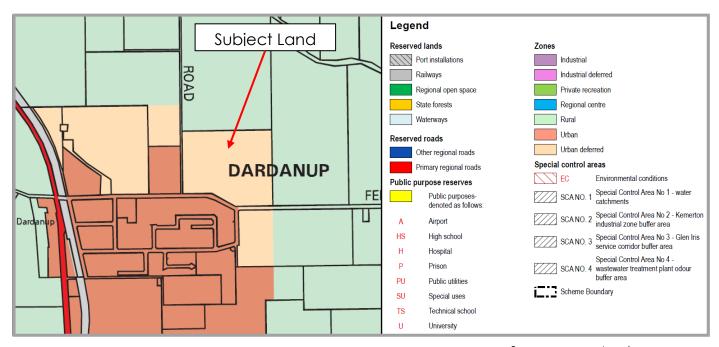
1.3.1 Zoning

1.3.1.1 Greater Bunbury Region Scheme (GBRS)

The Greater Bunbury Region Scheme (GBRS) has been in operation since November 2007 and provides the planning context for growth and development within the Greater Bunbury Region.

The subject land is currently zoned 'Urban Deferred' within the GBRS. Land to the north-west and south is similarly zoned. To the west and south-west land is zoned 'Urban' (refer to **Figure 4**). That land to the north and east of the subject land is currently zoned 'Rural'.

Figure 4Greater Bunbury Region Scheme
Scheme Map Extract



Source: www.planning.wa.gov.au

The subject land is not included within the Strategic Agricultural Resource Policy Area under the Greater Bunbury Region Scheme (refer to **Figure 5**) and therefore, is not regarded as prime agricultural land.

The land is not included within the 'Strategic Minerals and Basic Raw Materials Resource Policy Area' under the GBRS but is situated within the 'Titanium-zircon Referral Area (1000m)' - refer to **Figure 6**.

Amendment No 201, which resulted in the inclusion of the land within the 'Development' zone of the Shire of Dardanup Local Planning Scheme No. 3, is consistent with the existing GBRS 'Urban Deferred' zoning of the subject land. The proposed inclusion of the land within the 'Development' zone of the Shire of Dardanup Town Planning Scheme No. 3 facilitates the local structure planning upon the land the subject of this report and, consistent with the definition given to 'Urban Deferred' zoned land within the GBRS, will enable "various planning, servicing and environmental requirements which need to be addressed before urban development can take place" to occur on land which, by virtue of its zoning designation under the GBRS, is otherwise considered to be "land suitable for future urban development".



BUNBURY

City of Bunbury

Shire of Dardanup

Shire of Capel

Source: www.planning.wa.gov.au

Figure 5
Extract from Strategic Agricultural Resource Policy Area Map



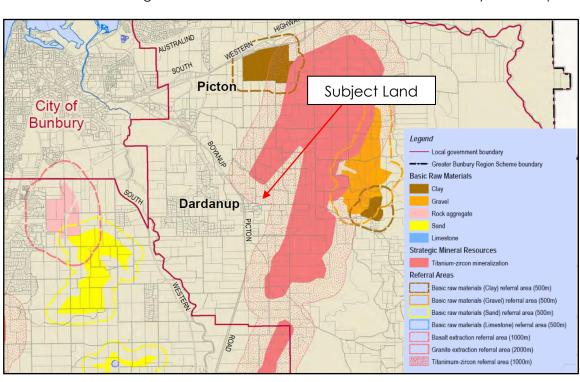


Figure 6Extract from Strategic Minerals and Basic Raw Materials Resource Policy Area Map

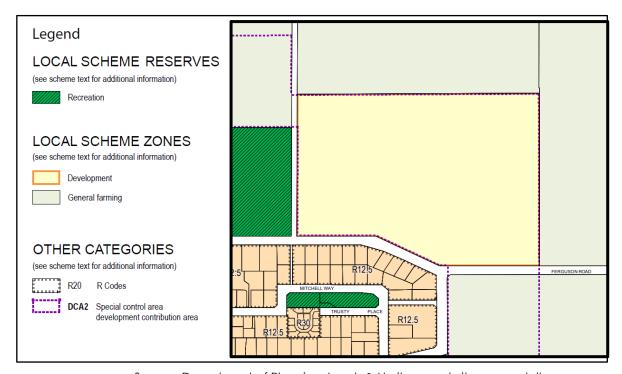
Source: www.planning.wa.gov.au



1.3.1.2 Shire of Dardanup Local Planning Scheme No. 3

Amendment No 201 to the Shire of Dardanup Local Planning Scheme No 3 rezoned the subject land to the 'Development' zone. Amendment No 201 took effect upon being published in the Government Gazette on the 31st of August 2018. Accordingly, the subject land is now zoned 'Development' under the terms of the Shire of Dardanup Local Planning Scheme No 3 as depicted in **Figure 7**. The land is also included within a 'Special Control Area – Development Contribution Area' under Scheme No 3.

Figure 7
Shire of Dardanup Local Planning Scheme No.3
Scheme Map Extract – Existing Zoning



Source: Department of Planning, Lands & Heritage website - www.dplh.wa.gov.au

The 'Objective' and 'Purpose' of the 'Development' zone are stated as:

'Objective':

"To provide for the orderly planning of large areas of land through a comprehensive Structure Plan which is able to respond to changing circumstances throughout the developmental stages of the area."

'Purpose':

- "(a) To identify areas requiring comprehensive planning prior to subdivision and development.
- (b) To coordinate subdivision, land use and development in areas requiring comprehensive planning."

Paragraph (a) of Clause 3.15.7.3 of Town Planning Scheme No. 3 advises that:

"(a) The Council requires a Structure Plan for land included in the Development Zone, or for any particular part or parts of a Development Zone, before recommending subdivision or approving the development of land within the Development Zone."

The Lot 23 Recreation Road Local Structure Plan meets the above Scheme requirement.



Clauses 3.15.7.4 to 3.15.7.35 of the Scheme relate to the preparation, adoption and approval of Structure Plans and detailed area plans.

The Western Australian Planning Commission's 'Structure Plan Framework' "Constitutes the manner and form in which a structure plan and activity centre plan is to be prepared, pursuant to Section 2, Part 4, clause 16 and Section 2, Part 5, clause 32 of the Planning and Development (Local Planning Schemes) Regulations 2015." (WAPC)

The above Framework supersedes the provisions of Local Planning Scheme No 3.

1.3.2 Planning Strategies

1.3.2.1 Greater Bunbury Strategy 2013 & the Greater Bunbury Structure Plan 2013

The Greater Bunbury Strategy 2013 and the Greater Bunbury Sub-regional Structure Plan 2013 (refer **Figure 8**) were prepared by the then Department of Planning (now the Department of Planning, Lands and Heritage) to guide urban and regional planning in the Greater Bunbury sub-region.

The Greater Bunbury Strategy incorporates the Greater Bunbury Structure Plan which is based on ensuring a 25 year supply of undeveloped land. The main purpose of the Structure Plan is to identify land ahead of the rezoning process and to stage the rezoning of that land in response to future growth trends.

The Strategy advocates that land that is already zoned, such as the Lot 23 Recreation Road Local Structure Plan area, should be encouraged and prioritised for development given the considerable supply of land that has already been deemed suitable, or potentially suitable, for new urban development and that has already been zoned accordingly under the Greater Bunbury Region Scheme.

The subject land is identified as 'Urban deferred undeveloped land' within the Greater Bunbury Sub-regional Structure Plan 2013.

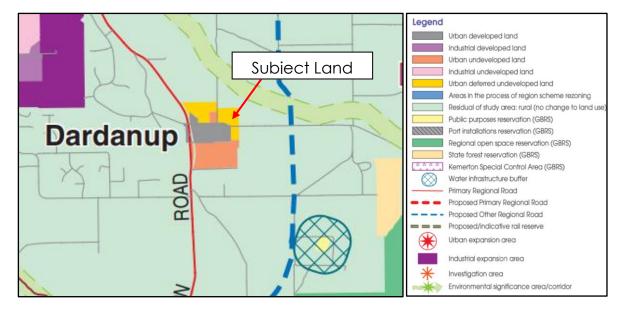


Figure 8

Extract from Greater Bunbury Sub-regional Structure Plan 2013

1.3.2.2 Shire of Dardanup Local Planning Strategy

The Shire of Dardanup Local Planning Strategy was endorsed by the Western Australian Planning Commission in May 2015. The Local Planning Strategy (LPS) is intended to set out the



Shire of Dardanup's broad vision and the longer-term directions for land use and development. The guiding principles for the Local Planning Strategy are:

- To provide a strategic plan that will plan for the future of the Shire in a responsible manner and reflects the aspirations of the Shire and its community, accommodates future needs and creates opportunities to enhance local attributes.
- To provide a strategic plan that is consistent with state and regional planning policies, strategies, structure plans and strategic development initiatives.
- To provide a strategic plan that is clear, comprehensive, accessible, informative, logical and transparent that provides strategic planning direction for the next 15 years.
- To provide a strategic plan that is a 'leadership' document that provides the basis for the preparation of the Shire's new Local Planning Scheme.

In relation to the Dardanup townsite the Local Planning Strategy states:

"A target population of around 4,000 persons in Dardanup under the current townsite expansion strategy will provide a sustainable neighbourhood unit that can be planned to retain a village character and offer a reasonable range of commercial and community facilities and services. The Dardanup Townsite Expansion Strategy has identified land along Charlotte Street as future commercial to cater for the increased population. The Shire's Developer Contribution Plan for the Dardanup Townsite identifies refurbished and additional community infrastructure to again cater for the increased population.

A Local Structure Plan has been adopted for the development of the majority of the expansion land south of the townsite. It is therefore recommended that the land within the Dardanup Townsite Expansion Strategy north of the townsite, that has not yet been rezoned, be identified in LPS9 as 'Development' within a Special Control Area for Structure Planning.

The subject area is shown on Strategy Map 2.3." (refer to **Figure 9** below). Strategy Map 2.3 identifies the subject land as 'Urban'.

LOCAL PLANNING STRATEGY
Dardanup and Burekup Townsites
Urban Settlement & Expansion
Map 2.3

Map 2.3

Authorised: R. Outrin Crawn: S. Politic
Resident Science (Date Content of Content of

Figure 9
Shire of Dardanup Local Planning Strategy Map 2.3

Source: Shire of Dardanup Local Planning Strategy



The recent 'Development' zoning and Local Structure Plan are consistent with the delineation of the land as 'Urban' as well as the above Local Planning Strategy recommendation.

1.3.2.3 Dardanup Townsite Expansion Strategy

The Dardanup Townsite Expansion Strategy was endorsed by the Western Australian Planning Commission on the 27th of July 2009.

The Strategy includes extensive analysis of, and justification for, the townsite expansion. The subject land is included within the endorsed Townsite Expansion Boundary (refer to **Figure 10**).

The Planning Policy Statement incorporated within the Strategy states, amongst other things, under the following headings:

Framework for Future Development:

 Prior to subdivision and development, a town planning scheme amendment shall be required to zone the land within the expansion area to Development zone. This Strategy provides the framework for an amendment. The TPS contains provisions which allow for a Development zone which facilitates the Structure Planning process. The Structure Planning process can then be initiated concurrently, and detailed planning can occur.

Residential:

- Residential lot densities shall range between R12.5 and R30, with the majority of the residential lot densities being R20.
- A boundary road is to extend around the residential and rural interface wherever possible.

Public Open Space:

- Public open space provision should be in the form of areas large enough for active recreation use.
- Joint public open space and drainage areas will not be supported, and linear open space is not preferred.
- Wherever possible, public open space shall be bounded by roads.
- The backing of residential lots onto public open space shall be avoided.
- The Shire shall use public open space cash in lieu payments to fund extensions and upgrading of the existing recreation ground and school oval.

Infrastructure Upgrades:

• No discussion has been undertaken or has the Shire advised that infrastructure upgrades will be required.

Land Use Buffers:

• A boundary road shall extend around the residential estate wherever possible. The boundary road shall incorporate a vegetated buffer design generally in accordance with the Strategy design requirements.

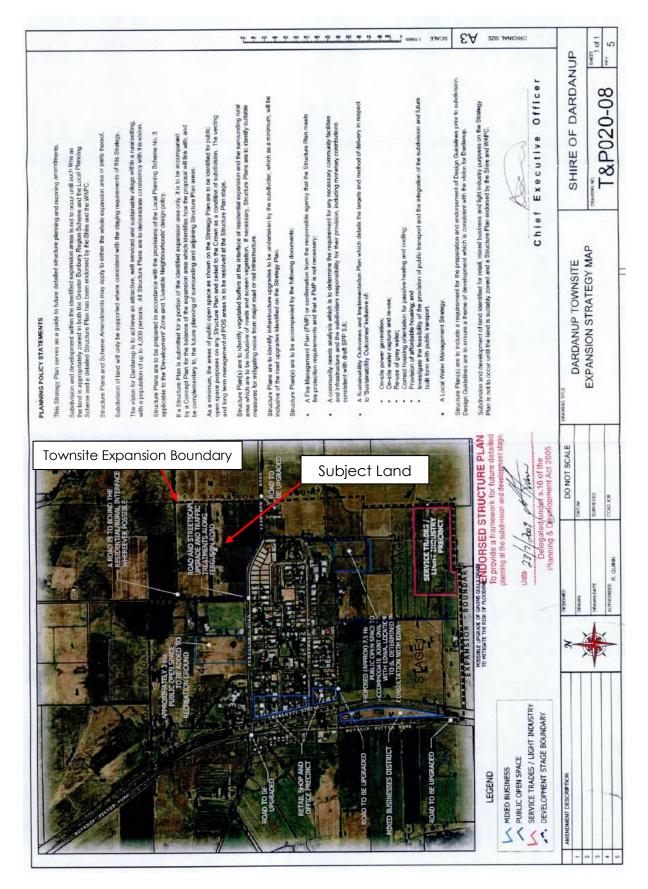
1.3.3 Planning Policies

1.3.3.1 Liveable Neighbourhoods

- Liveable Neighbourhoods (2007) operates as a neighbourhood design code, intended to facilitate the development of sustainable communities. The policy has many aspects but fundamentally the principle idea is to promote walkable mixed-use neighbourhoods.
- The Lot 23 Recreation Road Local Structure Plan has been formulated to comply with the objectives and intentions of Liveable Neighbourhoods.



Figure 10
Dardanup Townsite Expansion Strategy Map (as endorsed)





1.3.3.2 State Planning Policy 2.5 'Rural Planning'

The above policy advises at Clause 5.12:

"One of the key elements in achieving the objectives of this policy is ensuring that zones and sites are suitable for their intended purpose. As a result, at each stage of the planning framework, planning decision-makers need to consider the broad suitability of land uses and the ability to manage offsite impacts prior to determining whether the use of a buffer is necessary."

In the case of the subject land, the Dardanup Townsite Expansion Strategy requires that "A boundary road shall extend around the residential estate wherever possible." The location of irrigation channels adjacent to the eastern and northern boundaries of the local structure plan area assist in adding to the extent of the proposed buffer. In addition, the provision of a perimeter road with the front elevations of dwellings facing the rural land will, consistent with State Planning Policy 2.5, assist with the preservation of rural character and amenity for adjoining rural land.

At subdivision stage a Section 70A notification is to be placed on the Certificate of Title of each lot within the structure plan area to inform prospective purchasers that the land may be subject to nuisance impacts from agricultural activities in the proximity.

1.4 Pre-lodgement Consultation

| Agency | Date of Consultation | Method of Consultation | Summary of Outcome |
|--|-----------------------------------|---|--|
| Local Government | Numerous, March 2017 - present | Meetings, telephone discussions & EMail | On-going consultation and meeting regarding relevant planning issues, stormwater management and servicing. |
| Dept. of Planning, Lands & Heritage | March 2017 – present | | Initial consultation. Dept awaiting formal submission of LSP. |
| Harvey Water | March 2017 – present | Email & telephone discussion. | Harvey Water has advised that it is willing to supply the development with irrigation water for landscaping and public open space in addition to larger lot landowners that may abut the irrigation channel. |
| Dept. of Water | March 2017 – present | Email & telephone discussions, | Stormwater and Groundwater Management. |
| Water Corporation | March 2017 – present | Email & telephone discussions. | Awaiting response in relation to sewer. |

2.0 Site Conditions and Constraints

2.1 Landform, Soils & Geotechnical Investigations

The subject land is best described as flat. The land falls from a height of 30 metres AHD along its eastern boundary to 27.25 metres AHD along its western boundary (refer to **Attachment 3** – Feature Survey).

Lot 23 Recreation Road was geotechnically investigated in February 2018 by Galt Geotechnics. The site condition findings of the geotechnical investigations are summarised as:

- The typical soil profile encountered across the site comprises of Clayey SAND (SC) / Sandy CLAY varying in depth from 0.8 m to over 2.5 m; overlying CLAY / Sandy CLAY (CI-CH), that extended to the maximum depth of excavation of 2.5m.
- Shallow groundwater existed at the site ranging in depth from 0.9 m to 1.9 m, during the February 2018 investigation. Based upon the regional bore information GALT expect that the maximum groundwater level is relatively shallow, possibly at surface in places across the site.
- GALT consider the site is geotechnically capable of supporting the proposed development.
- The site, in its current condition, would be classified as Class M.
- The site generally requires the importation and placement of a minimum of 0.5 m of inert granular fill to achieve a Class S classification.
- A classification A site can be achieved where the importation and placement of a minimum of 1.8m of inert granular fill is undertaken.
- GALT recommend, in view of the expected high groundwater level in this area, that the site level is raised at least 0.5 m above current ground level and the surface shaped such that all stormwater drains off the site.
- GALT strongly recommend that earthworks on this site be done in drier months of the year (October to March). Given the clayey nature of the subsurface soils, we anticipate that construction difficulties may be encountered if earthworks are undertaken during the wetter times of the year. Compaction and trafficking of the site must NOT be attempted when the site is wet.

2.2 Acid Sulphate Soils (ASS)

In accordance with the Western Australian Planning Commission (WAPC) 'Acid Sulfate Soils Planning Guidelines', on land depicted as being wholly or partially within an area of "high to moderate acid sulfate soils" (i.e. depicted in red) the guidelines should be used during the preparation and assessment of local planning scheme amendments.

The Department of Environment Regulations Acid Sulfate Soils Risk Assessment maps show two risk categories:

Class 1 - (red/pink) high to moderate risk of ASS occurring within 3m of natural soil surface. **Class 2** - (orange) moderate to low risk of ASS occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface.

Acid Sulfate Soil mapping indicates that the subject land is located within (refer to **Figure 11**) an area of moderate to low risk of ASS occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface.

This low to moderate risk is considered unlikely to impact development of the site.



Ferguson Rd

Ferguson Rd

Ferguson Rd

Ferguson Rd

Ferguson Rd

Ferguson Rd

Figure 11
Acid Sulfate Soil map

Soil Risk Map

Acid Sulphate Soil Risk Map, Swan Coastal Plain (DWER-055)

- 1 High to moderate risk of ASS occurring within 3m of natural soil surface
- Moderate to low risk of ASS occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface

Source: Landgate SLIP Website www.data.wa.gov.au

2.3 Existing Building Infrastructure

Lot 23 Recreation Road currently contains a single residential home and several associated farming related sheds. The current development proposal for the land includes the retention and incorporation of the existing home. The associated storage sheds will require demolition and removal.

2.4 Illegal Dumping and Contamination

Visual inspection of the site does not indicate any areas of potential illegal dumping or areas potentially contaminated with unwanted waste, materials etc. Research of the contaminated site database on data.wa.gov.au, does not indicate any form of registered contamination on the site or that the site has been remediated in the past.

2.5 Ground Water and Surface Water

A review into existing groundwater levels and surface water (including discussion in relation to the irrigation channel within and adjoining the subject land) has been undertaken as part of the Engineering & Servicing Review undertaken by Pippin Civil Engineering – refer to **Technical Appendix 1**. The review summarises the GALT Geotechnical Study findings for the subject land undertaken in February 2018. An extract from the Engineering & Servicing Review in relation



to Groundwater, Surface Water and the Irrigation Channels is provided within Sections 2.5.1 to 2.5.3 below.

2.5.1 Ground Water

The GALT geotechnical study described the groundwater encountered during their investigation within the development site, as follows;

"6.3 GROUNDWATER

Groundwater was encountered in 10 of the 16 test pits at depths ranging from 0.9 m to 1.9 m. The WIN database shows that the groundwater depth in boreholes on and around the site varies from 0.5 m to 6.0 m below current ground levels. Based on the above, we expect that the maximum groundwater level is relatively shallow, possibly at surface in places across the site." (Source: Geotechnical Study proposed Residential Development LOT 23 (#16) Recreation Road, Dardanup – GALT Geotechnics)

Further investigation of the groundwater for its depth and subsequent peak groundwater level has not been undertaken for this site. The proposed development will assume that the groundwater level across the site will be at or marginally below the existing ground surface. This assumption is based upon the following rationale;

- A shallow groundwater level is indicative of the Dardanup townsite area.
- Advice from the current owner indicates a shallow groundwater during the likely peak months of September and October.
- The surface drains surrounding the site provide very little groundwater drawdown given their current spacing and that they are constructed from the existing subsurface clay material.
- The property is currently an operating, irrigated pasture therefore the irrigation regime will affect any groundwater monitoring undertaken across the property.
- The general advice (as included above) from GALT geotechnics and the regional groundwater bore information.
- The surface water body on the site provides very little information on the groundwater, even though it obviously intercepts the groundwater. The small dam is connected to the irrigation drain and provides both an inlet for water as well as an overflow during periods of stormwater surface flow or excess irrigation.

Further information on the groundwater associated with the site is included within the Local Water Management Strategy.

2.5.2 Surface Water Bodies

The site contains a single surface water body located approximately central to the northern property boundary. The surface water body, or farm dam, is an excavated depression for stock waterina.

The dam likely intercepts the groundwater, is connected to the irrigation drain and provides both an inlet for water as well as an overflow into the irrigation drain during periods of stormwater surface flow or excess irrigation. In order to further control the water level of the dam an open channel has been constructed during farming operations from the dam in a south westerly direction that allows surface water flow to continue in the general surface water flow pattern towards the south western corner of the site.

The proposed development and the subsequent Structure Plan does not include the retention of this dam, as such it will be earthworked in accordance with the backfill recommendations of the GALT geotechnical study.

Further information on the surface water bodies associated with the site is included within the Local Water Management Strategy.



At the subdivision stage a Section 70A notification is to be placed on the Certificate of Title of each lot within the structure plan area to inform prospective purchasers that due to shallow ground water, the use of raingardens would be required instead of standard concrete detention tanks such as soak wells. All building permit applications will need to demonstrate compliance with this requirement.

2.5.3 Irrigation Channel

Lot 23 Recreation Road is presently serviced with irrigated water from the Harvey Water Irrigation network. The open channel irrigation network that is located immediately outside the property on the eastern and northern boundaries. In addition, an approximate 75m section of irrigation channel currently exists in the north western corner.

The site is supplied via a connection and measuring wheel located in the south east corner, which supplies a private open dispersing channel that is located along the eastern property boundary, approximately 3.0m inside the fence. The private channel grades to the north and permits distributed flood irrigation of the property in an east to west direction. It is proposed that this supply point and private dispersing channel is removed as part of the development. However, it is proposed that a supply point for a pressurised piped, non-potable, water supply is provided for each proposed residence.

Preliminary discussion with Harvey Water has indicated that the existing irrigation channel, located outside of the property on the eastern and northern boundaries can remain when the site is developed for residential purposes. However, it is conditional upon development not interfering with the existing channel and its edge. Harvey Water has indicated that future irrigation water connections may be available to the development for the provision of irrigation water for the watering of POS, garden areas and a non-potable water supply for each proposed residence, sourced from the existing channel.

Based upon initial fill requirements this will likely result in retaining walls to the eastern and northern property boundaries abut the existing channel. The proposed road network is located along the northern and eastern boundaries which will allow a reduction in any retaining along these boundaries by sloping the adjoining verge towards the irrigation channel.

2.6 Development Siteworks & Infrastructure

2.6.1 Farthworks

GALT geotechnics has recommended that a minimum of 0.5m of clean granular fill be placed above the prepared clay surface for the development to occur and that a minimum of 0.5m of clean granular fill be placed above the prepared clay surface in order to achieve an 'S' classification for the development.

The GALT geotechnical study clearly states the preparation and fill requirements for the development to achieve an 'S' classification, in addition to the construction management, compaction and material specification. It is intended that these requirements and recommendations be incorporated into any future construction contracts associated with development of the site.

The levels across the development will be relatively flat and follow the current profile of the land to ensure a general drainage pattern to the south-western corner.

Based upon a conceptual earthwork design for both the subsurface clay material and minimum finished earthworks levels (completed as part of Local Water Management Strategy), it is envisaged that some areas will require fill greater than 0.5m in order to achieve the minimum clay surface slope as prescribed in the geotechnical report, the minimum sand depth below the road pavement (to meet the minimum requirements for stormwater pipework gradient) and to achieve an adequate separation to the groundwater (pre and post development).



The preparation of the Earthworks plan at detailed design stage will involve the careful consideration of design levels in order to ensure that a balance of cut to fill can be undertaken to prepare the clayey material surface and the minimisation of imported sand fill material.

2.6.2 Retaining Walls

Given the relatively flat topography it is envisaged that very limited retaining walls will be required between each and every proposed residential lot.

The indicative stormwater and earthworks concept design has indicated that small retaining walls may only be required to those lots that are located adjacent the proposed central road and PAW links where the existing trees are to remain and overland flow paths for extreme storm events are required through public land.

2.6.3 Landscaping

The development will include areas of biofiltration treatment for stormwater. These treatment areas will require the implementation of biofiltration vegetation that will be considered as part of the landscape works. The vegetation will be implemented in accordance with the requirements of the Vegetation Guidelines for stormwater biofilters in the south-west of Western Australia and be limited to establishment watering only.

Additional landscaping treatments are subject to Shire requirements and relevant approvals.

2.7 Bushfire Hazard

The subject land is not identified in the mapping prepared by the Department of Fire and Emergency Services as a 'Bushfire Prone Area'.

2.8 Infrastructure & Servicing

The Engineering and Servicing Review (refer to Technical Appendix 1 to this report) has been prepared to inform the Local Structure Plan. The report provides details relating to the existing servicing infrastructure, the expected servicing infrastructure and the likely Local Authority engineering conditions required achieve subdivision approval. The findings of the Review are summarised within the following sub-sections.

2.8.1 Movement Networks

The Shire of Dardanup will be the ultimate approval authority for any proposed public road network within the development of Lot 23 Recreation Road, Dardanup.

The site will contain approximately 180 dwellings of mixed R-Code classification which will generate approximately 1,620 trips per day or about 144 trips in the AM Peak Hour, based on published and accepted trip generation rates.

Road widths have been assessed within the Transport Impact Assessment (TIA) completed by Donald Veal Consultants (a copy of which is included as **Technical Appendix No 2a** to this report). The TIA indicates that road widths can generally be 5.5m in width, with 3 of the roads to be classified as Access Street B under the WAPC's Liveable Neighbourhoods. These roads will require an 18.0m road reserve with the potential for 2.3m wide carparking bays either side. The entrance from Recreation Road will retain existing rows of trees which can be accommodated within a marginally extended 19m road reserve and two split 3.5m wide road widths. The lots fronting Ferguson Road will gain access either via a one-way service lane or will have access from a 6m wide rear laneway. The remaining proposed roads will be classified Access Street Road D with up to 16m road reserve widths and 5.5m road widths without carparking either side. Roads which may in future abut neighbouring developments to the east and north are proposed at 10m. This allows for a 5.5m carriageway and a 4.5m shoulder width which will be complemented by future development on the adjacent lots.



The minimum surface finish required under the specification of the Shire of Dardanup will be a standard black asphalt. Consideration can be given to alternative surface finishes, particularly at intersections, roundabouts or rear laneways.

The development proposes two major entries, one from Recreation Road and the second from Ferguson Road. The access off Ferguson Road between Hayward Street and Recreation Road will attract the majority of trips to and from the site and no capacity issues are expected at its intersection with Ferguson Road. A second access road is proposed off Recreation Road at the location of the current Lot entrance. This access is expected to attract significantly less traffic than the Ferguson Road access. Again, there are no current or expected capacity or safety issues at this access or with the intersection of Recreation Road and Ferguson Road.

The structure plan proposes a service road for those lots intended to front Ferguson Road that do not have rear street/laneway access. The service road is proposed to be one way and provides a defined and safer separation of vehicle traffic from the through traffic associated with Ferguson Road. A review of these entry locations based upon sight distance requirements and in particular the requirements of the Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections, has been conceptually undertaken however detailed design of the intersection at subdivision stage shall consider all sight distance requirements.

As with the road construction, the Developer will be required to undertake the construction of a path network throughout the development site and link that path network to the existing path network in the Dardanup townsite. Footpaths are proposed on all internal streets within the proposed development. These are expected to adequately cater for the low volumes of pedestrian and cyclist demand, especially any demand from the less experienced cyclists. The low vehicle traffic volumes expected will also allow more experienced cyclists to ride safely on-street.

There is an existing 2-metre-wide footpath on the southern side of Ferguson Road. It is recommended that a pedestrian island refuge be constructed between Recreation Road and Hayward Street. This would be similar to the island south of the skate park and provide a safe crossing for pedestrians and cyclists travelling to the Dardanup Primary school. The applicant/owner shall at the subdivision stage construct a footpath that links the skate park and the development site on the northern side of Ferguson Road.

A coarse assessment of the Boyanup-Picton Road/ Ferguson Road intersection indicates that there is sufficient spare capacity to accommodate future growth and traffic from the proposed development.

Traffic volumes on the internal roads of the proposed development are expected to be low and less than 100vph.

The access road off Ferguson Road can be extended to the northern and southern boundaries of the site to connect with any future potential developments on adjoining land.

There are currently no public transport services to Dardanup. A trial bus service from Dardanup to Eaton Fair Shopping Centre was poorly patronised and is unlikely to become a permanent service.

The proponent and the Shire of Dardanup have agreed that the Recreation Road reserve will be increased by 10 metres along the length of the Lot 23 western boundary.

2.8.2 Stormwater Management

As noted within the pre-development stormwater peak flow estimation contained within the approved Local Water Management Strategy (refer to **Technical Appendix 3**), Pippin Civil



Engineering engaged Hyd20 Hydrology to assist in the modelling of stormwater for the post development scenario. A copy of the full Hyd20 letter/report is included as Attachment G to the LWMS.

The stormwater management strategy for the development of Lot 23 Recreation Road, Dardanup is to be undertaken in accordance with the guidelines of the Department of Water through the Better Urban Water management framework, consistent with water sensitive design practices and the requirements of the Shire of Dardanup.

The key components of the stormwater management strategy are;

- Residential building development to be provided with stormwater connections points for direct connection to the stormwater drainage network. The use of soakwells associated with building construction is not permitted.
- Residential Building development to be undertaken with the Shire of Dardanup's for stormwater detention to be undertaken on each proposed lot at a rate of 1.0m³ per 65m².
- Retention and treatment of the first 15mm of rainfall from any storm event within 3 bioretention areas located throughout the site.
- Collection and transfer of storm events up to 20% AEP event within a stormwater drainage pit and pipe system.
- Detention of the 20% AEP major storm event within 3 end of catchment stormwater basins/ ephemeral water storage areas, all constructed with controlled outflow infrastructure to match the pre-development 20% AEP peak flow rate.
- Conveyance of the 1.0% AEP extreme storm event will be undertaken through the road network, public access ways and drainage reserves.
- Detention of the 1.0% AEP extreme storm event within the 3 end of catchment stormwater basins/ ephemeral water storage areas with controlled outflow infrastructure to match the pre-development 1.0% AEP peak flow rate.

2.8.3 Groundwater Management

The management of groundwater will be undertaken on the proposed development, with the existing groundwater being noted at or just below the natural surface.

The development proposes to utilise a network of subsoil drainage to control groundwater levels across the development site to either at or just below the natural surface. As described in Section 4.1 Earthworks the existing clayey surface will be graded to a minimum of 1.0% towards the proposed subsoil network. It is conceptually intended to install subsoil pipework within each road reserve and to the rear of each of the proposed lots. Through closer spacing on the subsoil pipe network, the groundwater rise between subsoil pipework can be minimised.

Utilisation of the draft specification separation distances for groundwater controlled urban development and the provision of a stormwater connection for each proposed lot, will place the onus on the Builder, under the Building Code to adequately protect the future homes from groundwater. However, based upon the geotechnical advice to have a minimum of 0.5m of imported sand fill above the clayey natural surface, the clayey surface being graded to subsoil pipework and that subsoil network being installed at or just below the natural surface, then the minimum separation from post development groundwater level and finished earthwork level will be 0.5m. (refer Figure 3.1(a))

A detailed design of the subsoil network will be required to be undertaken at subdivision stage and as part of the future Urban Water Management Plan (UWMP).



2.8.4 Electrical Reticulation

Western Power has provided indicative mapping of their existing underground and overhead electrical assets within the vicinity of the site, as located to the north west of the existing Dardanup townsite.

Western Power presently has an extensive network of high (HV) and low voltage (LV) power cabling both above and below ground within the Dardanup townsite. In terms of the development site, this includes a High Voltage (HV) overhead power line within Ferguson Road and another within Recreation Road for the full length of the property boundary. The HV overhead in Ferguson Road is located within the northern verge of the road reserve, and crosses into the southern verge as it approaches Recreation Road from the east. The HV overhead in Recreation Road is located within the eastern verge of the road reserve.

The development would propose to provide a new underground power reticulation scheme that would provide each proposed lot with a power connection in addition to a network of street lights for the proposed roads.

2.8.5 Water Supply

The subject land falls within an area currently serviced with reticulated water by the Water Corporation of WA (WCWA) and any subdivision development of the land would be required to connect to reticulated water.

The existing home on Lot 23 Recreation Road is serviced with drinking water via on site rainwater tanks. The Water Corporation have a 100mm diameter water main located in the southern verge Ferguson Rd from the western edge of the development to Hayward Street.

Following a planning request made with the WCWA advice was received advising that initial modelling of the water reticulation network has indicated that a water supply is presently only available for a limited stage of subdivision development. In addition, that this first stage of development would be required to be undertaken as close to the existing water main in Ferguson Road and generally towards the lower, western side of the site.

In regard to servicing the full development WCWA advised "The system will struggle to achieve pressures of 20m in this area but should meet the minimum requirement of 15m at the lot boundaries. There is a 2 to 3 m elevation difference between the western and eastern parts of Lot 23, with the west end being lower. As a result, the highest pressures will be obtained on the western side of the lot (nearest to Recreation Road). Subdivision and development should therefore commence on the western side of the lot first, while a longer term solution to increase pressures and flows in Dardanup is being developed." (Source: Water Corporation of WA, July 2018).

This future planning for the longer-term solution will be commenced upon lodgement and approval of the Structure Plan.

The reticulation will be required to connect to the existing 100mm diameter reticulation main within Ferguson Road. This connection could be undertaken at the intersection with Recreation Road.

As per the power reticulation it will be a condition of subdivision that each and every proposed lot be provided with a single point of connection to the WCWA water reticulation main.

2.8.6 Sewerage Reticulation

As with the water reticulation, the subject land falls within an area serviced with sewer reticulation operated by the Water Corporation of WA (WCWA).



The WCWA have advised that the existing Dardanup townsite sewerage scheme is a vacuum system. Vacuum sewerage systems are reasonably uncommon and have only been installed in a few locations where the existing ground surface is relatively level. WCWA advised "These systems are unusual in WA and rarely used unless in exceptional circumstances, for example where the groundwater and ground conditions dictate. Vacuum systems can be difficult and costly to operate and any expansion of these systems is therefore done sparingly."

Discussion with WCWA indicated that Lot 23 Recreation Road was outside of their district planning and outside the current extent of the vacuum sewer system. Initial design indications were that it was not likely to be possible to extend the existing vacuum network northwards to connect to the proposed development or to undertake an upgrade to the existing vacuum network within the Dardanup townsite to provide a vacuum sewer service to Lot 23 Recreation Road. WCWA undertook to review their sewer planning for the expanded Dardanup Sewer District, based upon the anticipated townsite expansion strategy that the Shire completed in 2009.

In 2018, WCWA provided their updated Dardanup Sewer District planning that indicated that the residential development of Lot 23 Recreation Road could be serviced by their sewer network, however they also advised that they no longer wanted to continue with a vacuum sewer network and that all new sewer infrastructure within the Dardanup townsite shall be gravity sewer.

Within the Dardanup townsite area, WCWA have shown a requirement for three new sewerage pumpstations.

Based upon the updated Dardanup District Planning, any development on Lot 23 Recreation Rd will be required to construct a sewerage pumpstation (Pumpstation C noted on WCWA planning). In addition, development will be required to fund the pressure main connection to pumpstation A, which is located south of the township. Therefore, development on Lot 23 is currently contingent upon the further development of the southern townsite expansion area and the Roselands Estate, unless temporary, interim sewer transfer options can be explored with WCWA.

The sewerage pumpstation and sewer pressure main may be considered under the WCWA's Capital Investment Program (CIP). Further discussion is required to be undertaken with the WCWA Headworks delivery team when the Structure Plan is further advanced and has been referred to all servicing agencies.

As per the water reticulation it will be a condition of subdivision that each and every proposed lot be provided with a property connection to a WCWA sewer reticulation main.

2.8.7 Water Conservation

The development of Lot 23 Recreation Road from rural purposes to residential will increase the demand for water for the new residential properties, for drinking and reticulation, as well as irrigation of the public open space areas. Water conservation measures will be implemented across the development to reduce the reticulated water consumption. The development will be consistent with Water Corporation's "Waterwise" land development criteria, and include:

- The use of a higher density residential zoning than the existing townsite, with smaller lots, which can lead to a reduction in garden and the subsequent use of reticulated water.
- Promotion of use of waterwise practices including water efficient fixtures and fitting (taps, showerheads, toilets and appliances, rainwater tanks, waterwise landscaping).
- All houses to be built to 5 star building standards, in accordance with the Building Code.
- Use of native plants in POS and landscaped verge areas.
- Agreement with Harvey Water for the supply of irrigation water for the reticulation of POS and verge areas, for the duration of their establishment.



The specific measures and locations to achieve water conservation will be detailed in the Urban Water Management Plan (UWMP).

2.8.8 Telecommunications

Having regard to the proximity of the land to the established townsite of Dardanup and its associated telecommunications infrastructure, it is anticipated that the development will have access to the existing communications infrastructure. NBN records indicate that the Dardanup townsite has existing NBN Co infrastructure available for connection.

NBN has provided indicative mapping of its existing telecommunications infrastructure in the Dardanup townsite, however at this stage cannot comment on the connection for future development. However, the proximity of the existing infrastructure indicates that a full NBN telecommunications service will be available to all lots within the development. In addition, no backhauling or major extensions of the existing network will be required.

2.8.9 Reticulated Gas

There is no existing underground reticulated gas supply in the Dardanup townsite, therefore reticulated gas will not be an option available for the residential development. Atco Gas Australia has confirmed that they have no assets within Dardanup or in proximity to the site, that are affected by the development.

2.9 Context and Other Land Use Constraints and Opportunities

The structure plan area is located within the Dardanup Townsite Expansion boundary and is approximately 650 metres from the Dardanup General Store.

A range of community facilities and employment opportunities are within close proximity to the site including:

- Dardanup Town Centre;
- Dardanup Recreation Centre and grounds (netball, tennis, basketball, skate park, cricket, etc):
- Dardanup Primary School;
- Lady of Lourdes co-educational Catholic Primary School (220 students K to Year 6);
- Dardanup Public Library;
- Dardanup Dance Centre;
- Dardanup Tavern;
- General Store (ATM in store);
- Service Station/Machinery Hire; and,
- The Dardanup Bakery.

The Structure Plan site provides for ease of access to Ferguson Road which provides for direct access to the Boyanup-Picton Road.

Within the structure plan area there are currently no existing internal roads, pedestrian or cycle networks.

There are no existing public transport facilities within the structure plan area.

The subject land abuts rural land holdings to the north and east.

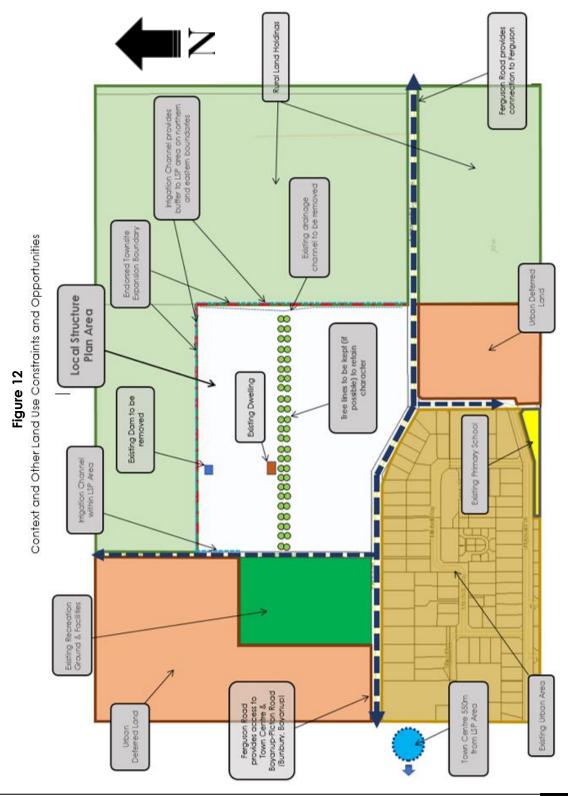
The subject land is located within very close proximity to the Dardanup Recreation ground and associated facilities.

Figure 12 provides a context and site analysis identifying the key opportunities and constraints related to the structure plan area. The figure identifies existing neighbourhood form in



surrounding areas and surrounding road and community infrastructure. The structure plan area is generally devoid of topographic features. However, remnant trees on the driveway entry are to be retained (subject to further engineering investigations) to both establish and enhance view corridors focussed onto the public open space areas.

The structure plan area is located approximately 17 kilometres (or 21 minutes) by road southeast of the Bunbury Regional Centre providing relatively convenient access to the range of services and facilities provided within the Regional Centre and Greater Bunbury Region.





Attachments

Attachment 1a

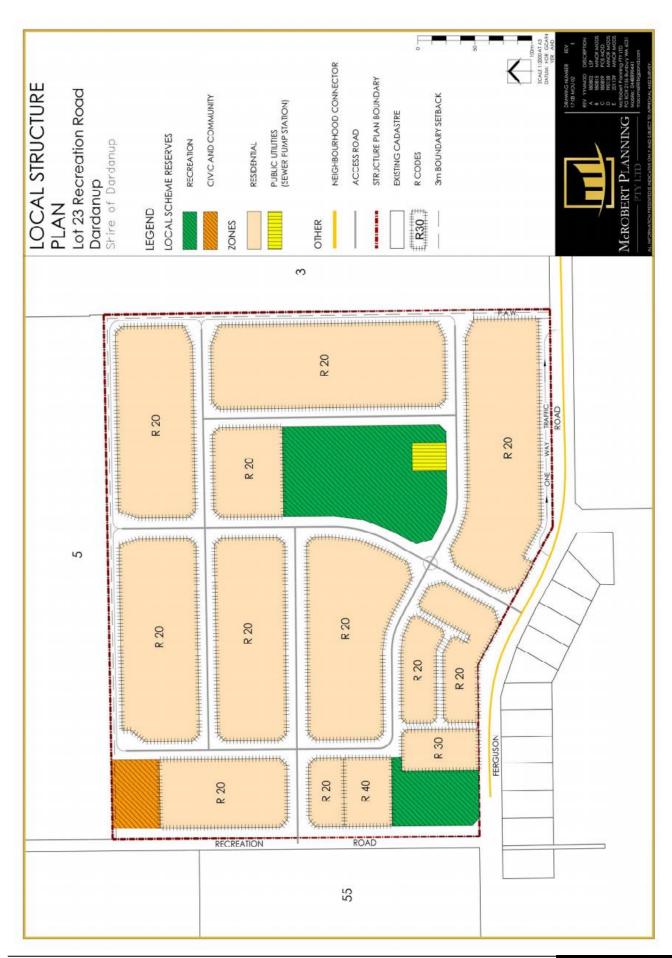
Lot 23 Recreation Road Local Structure Plan

&

Attachment 1b

Lot 23 Local Structure Plan Subdivision and Development Requirements







Lot 23 Recreation Road Local Structure Plan: Subdivision and Development Requirements

General

- 1. The Local Structure Plan requires a variety of lot sizes and densities, including medium density (R30 and R40), in conjunction with a primary residential density of R20, to be implemented as depicted on the plan.
- 2. All development is to be provided with connection to reticulated water and sewerage services.
- 3. The local street networks depicted shall be subject to refinement and modifications at subdivision stage.
- 4. Road design, drainage and public open space are required generally in accordance with the Local Structure Plan and the endorsed Local Water Management Strategy.
- 5. Should the existing dwelling be retained it shall be provided with access to an internal subdivision road.
- 6. All lots in the Local Structure Plan area shall be subject to design guidelines that ensure:
 - suitable interface with public open space
 - surveillance
 - permeable fencing
 - paths
 - landscaping
 - suitable building orientation for lots with rear lane access
 - encourage the use of a micro grid or solar panels
 - encourage the use of timber in building construction.
- 7. Consideration of the provisions of the Shire of Dardanup Policy No CP093 'Sustainability' in all aspects of the subdivision design and particularly in the preparation of the Urban Water Management Plan, landscaping plan and design guidelines.

Conditions of Subdivision

- 8. Implementation of the endorsed Local Water Management Strategy through the preparation of an Urban Water Management Plan.
- 9. The preparation of suitable landscaping plans. Any such plans are to include the use of local endemic plant species that occur within the relevant vegetation complexes and soil types in the locality.
- 10. The applicant/owner shall construct a footpath that links the skate park and the development site on the northern side of Ferguson Road.
- 11. Notification in the form of a section 70A notification, pursuant to the Transfer of Lands Act 1893 (as amended) is to be placed on the Certificates of Title of all the lots advising: "This lot is adjacent to agricultural land, wherein rural production activity may have a nuisance effect on amenity, from time to time."
- 12. Notification in the form of a section 70A notification, pursuant to the Transfer of Lands Act 1893 (as amended) is to be placed on the Certificates of Title of all the lots advising:

 "Due to the shallow ground water in the area conventional method of soak wells will not be allowed."



Lot 23 Recreation Road, Dardanup

Attachment 2 Certificate of Title

WESTERN



AUSTRALIA



VOLUME 1783

992

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 23 ON DEPOSITED PLAN 202743

REGISTERED PROPRIETOR:

(FIRST SCHEDULE)

ALLEN MOUNTFORD BEVERLEY ELIZABETH MOUNTFORD BOTH OF LOT 23 RECREATION RD, DARDANUP AS JOINT TENANTS

(T H984130) REGISTERED 14/1/2002

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:

(SECOND SCHEDULE)

- THE LAND THE SUBJECT OF THIS CERTIFICATE OF TITLE EXCLUDES ALL PORTIONS OF THE LOT DESCRIBED ABOVE EXCEPT THAT PORTION SHOWN IN THE SKETCH OF THE SUPERSEDED PAPER VERSION OF THIS TITLE.
- *M587746 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA REGISTERED 26/3/2014.

Warning:

A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.

* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.

Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1783-992 (23/DP202743)

PREVIOUS TITLE: 1070-714

PROPERTY STREET ADDRESS: 16 RECREATION RD, DARDANUP.

LOCAL GOVERNMENT AUTHORITY: SHIRE OF DARDANUP

A000001A LAND PARCEL IDENTIFIER OF DARDANUP ESTATE LOT 23 (OR THE PART THEREOF)

ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT 23 ON DEPOSITED PLAN 202743 ON 12-AUG-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.

END OF PAGE 1 - CONTINUED OVER

LANDGATE COPY OF ORIGINAL NOT TO SCALE Sat Oct 21 09:49:06 2017 JOB 55144764





Attachment 3 Feature Survey





