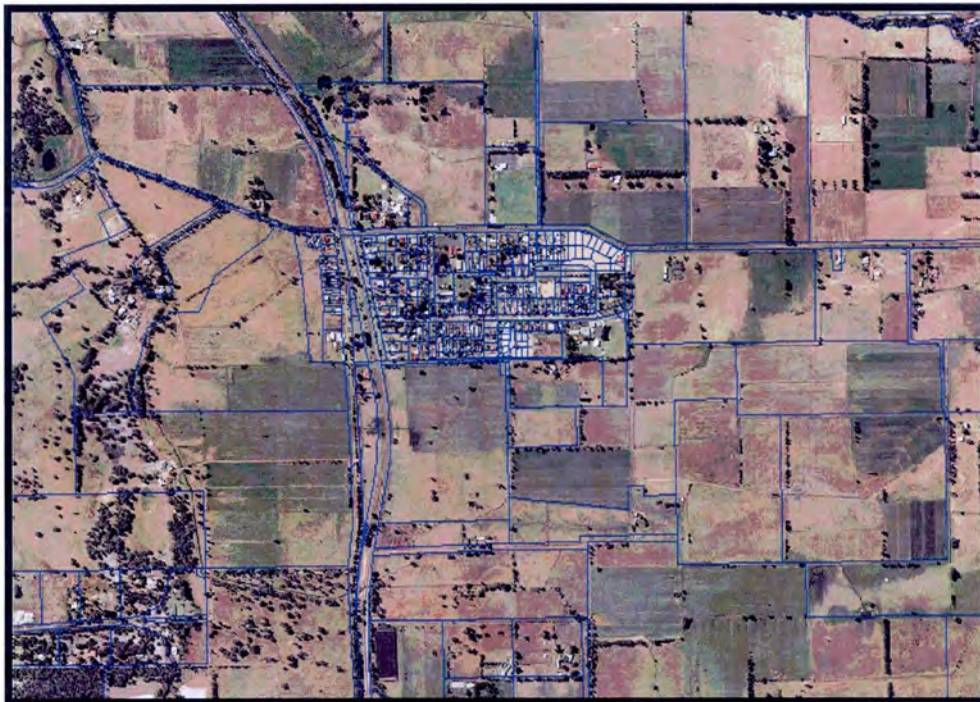




DARDANUP TOWNSITE EXPANSION STRATEGY 2009



Endorsed by the Western Australian Planning Commission 27 July 2009

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
1. INTRODUCTION	4
2. BACKGROUND STUDIES & POLICIES	5
2.1 Dardanup Townsite Expansion Strategy, 2005	5
2.2 Dardanup Townsite Expansion Scoping Study, 2006	6
2.3 Dardanup Townscape Study, 1990	7
2.4 Greater Bunbury Region Scheme, 2007	8
2.5 Shire of Dardanup Town Planning Scheme No.3	8
2.6 Shire of Dardanup Rural Strategy, 2000	8
2.7 Interim Greater Bunbury Commercial Strategy	8
2.8 Liveable Neighbourhoods (3rd Edition)	9
2.9 Urban Growth and Settlement Policy Statement of Planning Policy No.3, 2006	9
3. BACKGROUND INFORMATION	10
3.1 Current and Future Role of Dardanup	10
3.2 Environmental Issues	10
3.2.1 <i>Soil Conditions</i>	10
3.2.2 <i>Contaminated Sites</i>	10
3.3 Social Characteristics	10
3.3.1 Population	10
3.3.2 Age Composition	11
3.3.3 Household Composition	11
3.3.4 Housing Stock	11
3.3.5 Employment by Industry	11
3.4 Town Structure and Facilities	12
3.4.1 <i>Structure and Facilities</i>	12
3.4.2 <i>Public Open Space</i>	12
3.4.3 <i>Additional Public Open Space</i>	12
3.4.4 <i>Bordering Roads</i>	12
3.4.6 <i>Mixed Business Precinct</i>	13
3.4.7 <i>Service Trades/Light Industrial Precinct</i>	13
3.5 Service Infrastructure	14
3.5.1 <i>Irrigation Pipes and Channels</i>	14
3.5.2 <i>Reticulated Water and Sewerage</i>	14
3.5.3 <i>Stormwater Drainage Management</i>	14
3.5.4 <i>Flood Risk</i>	15
3.5.5 <i>Power</i>	15
3.6 Key Outcomes	15

4.	JUSTIFICATION FOR EXPANSION OF DARDANUP TOWNSITE	17
4.1	Western Australian Planning Commission Policy Considerations	17
4.2	Existing Population and Settlement Patterns	17
4.3	Land Zoning	20
4.4	Land Requirements Using Scenario Planning	21
4.4.1	<i>Background to Conservative Scenario</i>	21
4.5	Existing Population and Dwellings in Townsites	23
4.6	Additional Dwellings for Inland Townsites to 2031	24
4.7	Estimated Additional Residential Zoned Land Required to 2031	25
4.8	Dardanup Townsite – Indicative Land Release	26
5.	EXPANSION STRATEGY	28
5.1	Residential Expansion Area	28
5.2	Accessibility and Convenience	28
5.3	Traffic and Road Capacities	28
5.4	Retail Shop and Offices Precinct – Mixed Use Development	28
5.5	Mixed Business Precinct	28
5.6	Service Trades/Light Industrial Precinct	29
5.7	Existing Veterinary Clinic	29
5.8	Greater Bunbury Region Scheme	29
6.	PLANNING POLICY STATEMENT	30
6.1	Framework for Future Development – Rezoning/Structure Planning	30
6.2	Residential	30
6.3	Public Open Space	30
6.4	Retail Shop and Offices Precinct	31
6.5	Mixed Business Precinct	31
6.6	Service Trades/Light Industrial Precinct	31
6.7	Service Infrastructure	32
6.8	Infrastructure Upgrades	32
6.9	70A Notification	32
6.10	Rail Corridor Boundaries	32
6.11	Land Use Buffers	32

EXECUTIVE SUMMARY

The purpose of this Dardanup Townsite Expansion Strategy 2008 is to provide a framework for the orderly expansion of the Dardanup Townsite. The Strategy details the Dardanup Shire Council's and the community's expectations for the future expansion of the Dardanup Townsite. The expansion process will occur through a structure planning process and community input will be a critical component of the expansion.

Dardanup currently has a population of 371 (ABS, 2006) and a townsite area of 23ha. It is proposed to expand the townsite by approximately 100 hectares. Using a number of 7 dwellings per hectare and a dwelling occupancy rate of 2.3 persons, the town site population will increase to a population of approximately 2,000 persons. The figure of 2,000 persons is not expected to occur until 2031 and this can be controlled by staging.

Currently the Dardanup Townsite occupies an area of approximately 23ha with approximately 360 m² (Land Use and Employment Survey, Dept. for Planning and Infrastructure, 2002) of retail floor space. The Interim Greater Bunbury Commercial Strategy denotes Dardanup as a Local Centre with a maximum shopping floor space area of 1000m². Therefore, there is the opportunity to create approximately 600 m² of shopping floor space under this strategy.

Through the expansion process there will be an upgrading of community facilities including sports and civic facilities. It is proposed to increase and upgrade the existing recreation ground to cater for existing demand and future population growth.

1. INTRODUCTION

Dardanup is a small rural town with a population of 371 in 2006 (ABS Census). It was the Shire administrative centre for many years until the main administration centre was relocated to Eaton. A Shire branch still operates at Dardanup. The town is well endowed with community facilities including a State and private primary school, a community centre including a kindergarten and child care centre, community hall, local tourism office and recreation ground with associated facilities.

The Shire Council has provided a range of facilities in the town that require a larger population base to improve their economic viability and overall sustainability in accord with the planning objective:

to build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities (Urban Growth and Settlement Policy, State Planning Policy No.3, Western Australian Planning Commission 2006).

The Shire Council wishes to expand the residential area of the town in order to achieve a town population that, when combined with the population in the surrounding area will provide more support to existing community and commercial facilities.

The Dardanup Townsite Expansion Strategy 2008 is a balance between the need to facilitate growth that will sustain a range of community and commercial facilities, accommodate population growth for many years and retains a village character acknowledging the physical constraints of the surrounding irrigated area and major drains.

The 2008 Strategy sets out a framework for the town development over the long term.

2. BACKGROUND STUDIES & POLICIES

2.1 Dardanup Townsite Expansion Strategy, 2005

This Strategy was prepared to cater for the projected additional population up to 2016. It did not consider land expansion or issues beyond that time. The most important points from that Strategy and the submissions are noted as follows.

- i. The total proposed expansion area was approximately 15ha. This would accommodate approximately 370 persons at residential densities of R12.5 and R2.5. The proposed expansion areas are shown on the attached Figure 1.
- ii. It was a requirement of the Western Australian Planning Commission and part of the Strategy that a residential road is to be an interface between the urban land and the adjoining farmland.
- iii. The significant comments in the submissions were as follows.
 - a. The Water Corporation had no objections although some of the expansion area was outside their wastewater operating area and an extension would have to be sought through the Economic Regulation Authority before servicing the area could occur.
 - b. The Department of Education and Training noted that the State primary school may require additional land from subdivisions to increase the school site to 4ha. They also requested that there be a road between the school and surrounding residential lots. The latter was supported by Council and was to be reflected in the Strategy.
 - c. Harvey Water considered the expansion optimistic in light of the historical population growth. It agreed with the western expansion area but wanted the southern expansion area deferred until the 2006 Census data was available. Council did not support this idea (Harvey Water, then South West Irrigation, had indicated to the Shire in 2001 that it considered the "least disruptive direction to expand the townsite would be to the south and east." The northward expansion was not favoured in the short-term because the existing irrigation infrastructure will create problems and additional costs for developers.)
 - d. Main Roads WA had no objections but stated that roundabouts on the Picton-Boyanup Road were not supported. The Road is a designated B-Double route and no roundabouts could be introduced until an alternative heavy haulage route such as the Bunbury Outer Ring Road was in place. They suggested that Council consider a bypass road to the west of the town but Council did not support this idea because they wanted the commercial centre to be exposed to traffic but the traffic on the Road to be slowed down.
 - e. The Public Transport Authority had no objections but stated that it may request conditions from the Western Australian Planning Commission for notifications on Certificates of Titles regarding the

noise and vibration of trains, roundabout land that encroaches onto the rail reserve would need to be purchased by the Shire, no drainage onto rail land and fencing to be installed and maintained along the rail line.

- f. Dardanup Veterinary Centre is located on Lot 1 on land zoned "General Farming" and as such it is a permitted use. They were seeking security of tenure for their centre which they considered to be a much needed local service. They requested a zoning such as Commercial A that would allow a veterinary centre. Council supported this with a recommendation that Lot 1 and portion of Location 76 between the railway reserve and the Picton-Boyanup Road be shown on the Strategy as Mixed Business area.

The Western Australian Planning Commission resolved:

- a. to support the southern area expansion;
- b. not to support any expansion to the west; and
- c. to request a further review which:
 - (i) "clearly defines the long-term civic and commercial centre for the townsite, and
 - (ii) provides for long-term expansion of the town to the north and south/east with the existing primary schools forming the centre of safe, walkable residential catchment areas".

2.2 Dardanup Townsite Expansion Scoping Study, 2006

This study was to scope what were considered to be the major constraints for townsite expansion. The findings of the Study are noted below.

1. The Scoping Strategy proposed an expansion area of approximately 105 hectares to the north and south of the town. Based on a residential density of R12.5 this area could accommodate an estimated additional 950 people.
2. Any expansion will encounter irrigation pipes and irrigation/drainage channels.
 - a. Developers of northward expansion will need to negotiate with landowners and Harvey Water to ensure that subdivision and development can occur. However, the channels to the north do not appear to present insurmountable difficulties for future urban expansion.
 - b. An irrigation water pipe runs underground along the existing southern boundary of the town and any southward expansion will need to resolve the future of the pipe and put in place management provisions. Again this does not appear to present insurmountable difficulties.
 - c. Southward expansion, depending on how far south it extends, will encounter the Gavins Gully drain. This is the most significant drain in the rural area and is under the control of the Water Corporation. This drain has the potential to impose a major

constraint to residential expansion. It will be addressed in the drainage strategy referred to in point three below.

3. Depending on the extent of the expansion, there may be a need to upgrade water and sewerage infrastructure. Any expansion proposals will need detailed engineering investigation by the Water Corporation. Developers will be required to negotiate with the Corporation over the nature of the upgrades and funding arrangements.
4. Stormwater drainage is a major issue because there has been little planning in the past and standards have become more stringent. The Study recommended that if a townsite expansion strategy is undertaken then a drainage strategy should be prepared.

2.3 Dardanup Townscape Study, 1990

This Study primarily addressed townscape improvement proposals. There are some comments about future townsite expansion and the retention of the country town character.

1. Dardanup "is a rural townsite with the character of a rural village... Care must be taken to ensure that any expansion takes place in such a way that the essential characteristics of the town are maintained and enhanced..."
2. This can be achieved by:
 - a. consolidating future commercial activities in the existing commercial centre behind the existing Post Office, General Store and Tavern.
 - b. The Study proposes development ideas;
 - emphasizing the central east-west spine that links the important elements that make up the structure of the town – railway square, the private primary school and Catholic church and the old school, the commercial centre to the Shire Offices and community hall, then through Trusty Place and Mitchell Way onto the State primary school; and
 - encouraging new development in the town to reflect the style, character and details of existing development which contributes positively to the country town character.
 - c. The areas of residential expansion and the urban design of those areas should maintain and enhance these key elements that contribute to the rural village character.
 - d. The Study only considered the northward expansion of the town. This would result in the Civic Centre being even more important in the town structure because Ferguson Road, through the town, would become the main internal town road. The development of community facilities on the northern side of Ferguson Road would create a town civic focus.

The study made no mention of lot sizes contributing to rural village character. Rather it agreed with other planning statements that favoured consolidation of the existing town lots before expansion.

2.4 Greater Bunbury Region Scheme, 2007

The existing developed areas of the town are zoned Urban in the Greater Bunbury Region Scheme (GBRS). The area surrounding this is zoned Rural. Any residential expansion into the area zoned Rural will necessitate an amendment to the GBRS.

Also the GBRS has an overlay of a Strategic Agricultural Resource Policy Area over much of the area zoned Rural around the town. However, it is excluded from areas adjoining on the north and south of the town and abuts the exiting town development on the east.

2.5 Shire of Dardanup Town Planning Scheme No.3

The Shire of Dardanup Town Planning Scheme No. 3 (TPS) zones land within and around the townsite (Figure 2). The TPS designates an area around the existing commercial development as a Special Development Area where the *"subdivision or development of land ... is not permitted unless the land is appropriately zoned and an overall concept plan report in respect thereof has been approved by the Council and the Western Australian Planning Commission"* or a Town Planning Scheme has been prepared for the Area.

An amendment to the TPS is currently under way to remove the Special Development Area in the Dardanup Townsite.

2.6 Shire of Dardanup Rural Strategy, 2000

The Rural Strategy deals with the townsite and possible expansion under Policy Area PA-5. The policy Area Guideline states that "Council will facilitate long term urban expansion."

The development issues noted in the Policy Area are:

- "encroachment into irrigation areas;
- conflicts with adjoining rural activities;
- maintenance of rural village character;
- extensions to centrally accessible public open space and community facilities;
- Main Roads preferred setback to the Boyanup-Picton Road outside the townsite boundaries is 50 metres where achievable."

A note to the Policy Area states that the "Western Australian Planning Commission supports in principle the 'Dardanup Townsite Expansion', however, detailed expansion proposals will be endorsed once the Expansion Study and Scheme Review have been completed."

2.7 Interim Greater Bunbury Commercial Strategy

The Interim Greater Bunbury Commercial Strategy denotes Dardanup as a Local Centre with a maximum shopping floorspace area of 1000m². The strategy notes that this size is relative to the population of the local catchment.

2.8 Liveable Neighbourhoods (3rd Edition)

This applies to the *“design and assessment of structure plans for new urban (predominantly residential) areas in the metropolitan area and country centres, where two or more lots are created on ‘greenfield’ sites at the urban edge...”*.

Some of the applicable key issues in this policy are:

- *urban structure – “to provide for an urban structure of walkable neighbourhoods clustering to form towns of compatibly mixed uses in order to reduce car dependences for access to employment, retail and community facilities” (p2)*
- *lot sizes and housing – “to provide a variety of lot sizes and housing types to cater for the diverse housing needs of the community at a density that can ultimately support the provision of local services” (p3)*
- *retail main street – main street-fronting retail layouts should predominate*
- *public open space – “the Western Australian Planning Commission will consider combining some...park functions where it can be demonstrated that the full range of recreation/leisure/amenity outcomes are in convenient walking distance of most dwellings” (p90)*

2.9 Urban Growth and Settlement Policy Statement of Planning Policy No.3, 2006

This Policy sets out *“the principles and considerations which apply to planning for urban growth and settlement in Western Australia”*. The Policy needs to be taken into account by local government *“to ensure integrated decision making in planning for urban growth and settlement.”*

The objectives of the Policy that are relevant to the expansion of Dardanup are as follows:

- *“To build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities.*
- *To manage the growth and development of urban areas in response to the social and economic needs of the community and in recognition of relevant climatic, environmental, heritage and community values.*
- *To promote the development of a sustainable and liveable neighbourhood form which reduces energy, water and travel demand whilst ensuring safe and convenient access to employment and services by all modes, provides choice and affordability of housing and creates an identifiable sense of place for each community.”*

3. BACKGROUND INFORMATION

3.1 Current and Future Role of Dardanup

Traditionally the town has been the service centre for the surrounding agricultural community as well a residential centre for people working in a range of employment opportunities and for retirees. It was the Shire administrative centre until 1998 when the main administration centre was relocated to Eaton. There is still a branch of the Shire administration in the town.

The town is also the gateway to the Ferguson Valley with its tourist attractions.

The small population growth in the past indicates that the town is not a true dormitory centre. However, this will change with the growth of the population and additional community and commercial facilities and services.

3.2 Environmental Issues

3.2.1 Soil Conditions

The land around the town is part of the Pinjarra System where the majority of soils are imperfectly to poorly drained. The land requires considerable fill prior to development.

The poor drainage of most of the soils creates a perched water table for months over the winter and spring seasons. This low infiltration characteristic has ramifications for stormwater drainage using water sensitive urban design measures.

3.2.2 Contaminated Sites

A detailed examination of the proposed expansion land for contaminated sites is beyond the scope of this Strategy. Individual sites will need to be cleared at the stage of rezoning or subdivision as required by the Western Australian Planning Commission.

Advice from the Shire shows that there are no known contaminated sites although some of the land may have been previously used for growing vegetables and fruit and there may be pockets of contamination.

The Shire also advise that because of the clay content of the soils the contaminants are held higher in the soil profile and in some case break down under the influence of ultra violet light.

3.3 Social Characteristics

3.3.1 Population

The population of the town has increased slowly over the ten year period from 1996 when there was 334 persons. In 2001 there was 348 persons and in 2006 there was 371 persons.

3.3.2 Age Composition

The age composition of the 2006 population is shown in Table 1 below:

Table 1
Age Composition of Dardanup Townsite Population 2006
Compared to Shire Composition

	Age Group	Number	%	Shire%
Family Group	0-17	130	63	63
	25-44	105		
Youth	18-24	18	5	8
Ageing Group	45-64	77	21	20
Older Group	65+	41	11	8

Source: Compiled from 2006 Census ABS

The Family Group is the dominant group with the same percentage as the total Shire. Compared with the Shire the Youth age group is proportionally less and the Older age group is proportionally higher. These differences are probably:

- a. a reflection of the lack of job opportunities for adolescents and young adults in a small town and the attractions of larger urban centres for this age group; and
- b. older people retiring off farming properties but still wanting to be close to the property and in a familiar locality.

3.3.3 Household Composition

Family households of couples with children and one parent families made up 62% of the 188 households. Households with couples without kids and lone persons were each 19% of total household.

3.3.4 Housing Stock

Separate houses dominate with 94% of the 123 dwellings. However, with over one third of the households being couples without children and lone persons there is probably a need for a variety of housing types.

3.3.5 Employment by Industry

In 2001 (2006 data not available) nearly 25% of the 142 people in employment were in the manufacturing sector. This probably reflected the proximity of the townsite to industries in the adjoining Preston Industrial Park and to the major resource processing industries in the region. There were no other significant clusters of employment

3.4 Town Structure and Facilities

3.4.1 Structure and Facilities

The town has an east-west orientation with Ferguson Road being the main road through the town that directly links the major town functions of the commercial centre, the major historical precinct, the civic facilities, Shire administration, the recreation ground and one of the primary schools. It also indirectly links to the second primary school.

The commercial centre in Charlotte Street and the civic centre in Little Street are recognisable centres with only 200 metres separation. The civic centre comprises the Shire administration office, community hall, community centre, day care and kindergarten. On the other side of Ferguson Road is the recreation ground and facilities (See Figure 2).

3.4.2 Public Open Space

The location of the present public open space is shown on the zoning map adjacent to Recreation Drive. The recreation ground is for active sporting events including cricket, hockey, soccer, basketball and a small skate park. There are club rooms and a paved car parking area. An additional sporting area is needed to cater for growing demand for soccer fields.

The other smaller areas of open space are for passive recreation. At present the small eastern area of open space is poorly developed.

The two primary schools also have playing areas.

3.4.3 Additional Public Open Space

Council requires the 10% public open space provision from subdivision to be in the form of areas that are useable for active recreation. Public open space associated with drainage functions and linear open space is not a preferred form.

In addition there is a need for approximately 3 hectares of additional public open space to increase the size of the existing recreation ground to enable Australian rules football and soccer to be played. It is proposed that this can be provided from subdividers in public open space contributions.

Also it is proposed to make provision for approximately 2.5ha to be added to the existing school oval area. This will allow for development of a shared oval facility between the Education Department of WA and the Shire of Dardanup.

3.4.4 Bordering Roads

It is the Council's preference for roads to border open space wherever possible particularly the larger grounds such as the recreation ground. The roads provide ease of access and parking and better surveillance.

Backing residential development onto public open space will not be supported.

3.4.5 Retail Shop and Offices Precinct

In 2002 there was 260m² of shop floorspace and 100m² of trade/bulky goods floorspace, (Land Use and Employment Survey, Dept. for Planning and Infrastructure), comprising of a general store and post office, a farm, hardware and general farm merchandise store, a service station, vehicle repairs and a tavern.

This small commercial precinct is located in Charlotte Street between Ferguson Road to a small distance past Doolan Street (see Figure 2).

Increased retail activity will be generated by the growth of population in the town and rural catchment. The future potential population of the retail catchment is estimated to be around 5,200 persons made up of 2,000 people in the town, 2,200 in the Dardanup West Rural Residential area and 1,000 in the rural/agricultural area.

This population could support a neighbourhood centre. It is proposed that there will only be one retail centre in the town in order to facilitate the overall economic viability and supply of retail goods. Offices could also be permitted in this Precinct.

The existing commercial development is on an individual lot basis somewhat similar to a "main street" or strip style commercial centre. This is the preferred form of development because it is in keeping with a village character.

3.4.6 Mixed Business Precinct

Small towns do not generate sufficient demand for specialised commercial precincts except for the retail shop precinct. However, there is often a need for an area that can accommodate commercial uses that require larger operating areas than shops and need to cater for larger vehicles such as farm trucks and utilities. The types of uses include showrooms/warehouses, hardware and farm supplies, trade displays and plant nurseries etc.

There is an existing veterinary centre on the corner of Cleary Road and the Picton-Boyanup Road. It is these types of the land uses that could be accommodated in a mixed business precinct.

In response to a submission on the 2005 Expansion Strategy the proprietors of the veterinary centre sought an assurance from Council that would allow them to continue to operate from the site. In response Council adopted (26th April '05) the Planning Officer's recommendation that "Lot 1 and that portion of Lot 76 located between the railway line and the Boyanup Picton Road be shown on the Strategy as a Mixed Business Expansion Area".

The zoning of this land will need to ensure that the precinct does not develop into a household shopping area to the detriment of the Retail Shop Precinct.

3.4.7 Service Trades/Light Industrial Precinct

There is a need for a light industrial area reasonably close to the town. The Shire has had numerous enquiries from people involved in household and trades wishing to establish in such an area.

Reasonable proximity to the town is important for ease of business identification and customer convenience. Also it is necessary to be able to serve the site with reticulated water and sewerage.

Land use buffers will be required and these could be incorporated into a drainage feature or some type of public open space. To minimise the impact of this precinct design guidelines and controls on the maximum lot areas could be used.

3.5 Service Infrastructure

3.5.1 Irrigation Pipes and Channels

Irrigation water is supplied to properties to the west of the town over the Picton-Boyanup Road. This water is supplied by pipes and/or channels that traverse the proposed expansion area.

The channel in the northern expansion area also supplies water to the recreation ground on Ferguson Road. Part of it also functions as a drain for some of the town stormwater discharging into the Tiger drain.

These supply pipes and channels do not present insurmountable difficulties for future urban development. However, subdividers will need to:

- a. negotiate with Harvey Water and the Shire to ensure, where it is required, that water can continue to be supplied to farms and the recreation ground and that the town drainage is not compromised; and
- b. negotiate with Harvey Water and the Shire where pipes and/or channels are relocated and ensure that these are safe and secure; and
- c. be responsible for the decommissioning of any pipes and channels that will no longer be required to the specifications and satisfaction of Harvey Water and the Shire.

3.5.2 Reticulated Water and Sewerage

The proposed residential expansion area differs in part from the present Water Corporation operating areas and the Corporation will need to seek extensions to the areas. This should not be an issue.

The Strategy will be subject to detailed engineering investigation and planning by the Water Corporation. The preliminary advice of the Corporation is that some infrastructure and possibly some headworks will require upgrading. The timing of this will be the subject of negotiations between the subdividers and the Corporation.

Depending on the nature of the headworks upgrading there may be scope for pre-funding arrangements to be put in place. These are matters for the subdivider and the Corporation.

3.5.3 Stormwater Drainage Management

Hayward Street is the drainage catchment divide in the town. Stormwater drainage to the north of Hayward Street discharges into Tiger drain and to the south into Gavins Gully drain. Both are Water Corporation drains.

The town is sited on land that is naturally poorly drained and has low infiltration. These site conditions need to be taken into account in the management of the stormwater drainage particularly in the use of water sensitive urban design measures (*section 5.2 of Environment and Natural Resources Policy, State Planning Policy No.2, Western Australian Planning Commission, 2003 and the Subdivision and development control section of Water Resources, State Planning Policy No.2.9, Western Australian Planning Commission, 2006*).

One of the key measures is to manage post development discharge into the drains so that they are similar to the pre-development conditions. This is normally done through on-site retention and detention and the maximisation of infiltration. These measures are not effective in urban areas that have very low infiltration. However, there are physical engineered solutions that may be more appropriate. Water quality measures such as litter traps should also be considered.

3.5.4 Flood Risk

Gavins Gully meanders south of the town. It is a rural drain that under extreme rainfall events may cause some flooding. Subject to further study there may need to be an upgrade of the drain to mitigate against the risk of flooding.

3.5.5 Power

Western Power advised that distribution of power will not be a constraint to further residential expansion. A substation is to be constructed to service areas south of Picton. There are no transmission lines through the proposed expansion area.

3.6 Key Outcomes

The key outcomes of the review of the above documents are as follows.

- i. The Strategy is to set a framework for the long term expansion of the town.
- ii. The southern area of the 2005 Strategy could accommodate about 330 people at a density of R20.
- iii. There is a need to clearly define the long-term civic and commercial precincts.
- iv. These precincts should be consolidated. The commercial precinct should be consolidated as a main street retail layout. This can be achieved along Charlotte Street.
- v. There is a need for areas that can accommodate commercial uses that are not appropriate for the shop retail area and for an area to accommodate service trades and light industries. Both of these areas should be within reasonable proximity of the town.
- vi. Long-term expansion should be to the north and to the south/east within walkable residential catchments of the two primary schools.
- vii. Expansion should consolidate the east-west orientation with a strong link between the commercial and civic precincts. This will help to retain the village character.
- viii. Any expansion will encounter issues related to irrigation/drainage pipes and channels.

- ix. Depending on the extent of the expansion, there may be a need to upgrade water and sewerage infrastructure.
- x. The discharge of stormwater drainage will be a key issue and is the subject of a separate study.
- xi. Subject to the drainage study and to the extent of the proposed residential expansion Gavins Gully drain may be a major constraint to future development.
- xii. Eventually there will be a need to expand the Dardanup Primary School.
- xiii. The Dardanup Primary School should be bordered wherever possible with roads.
- xiv. Public open space provision should be in the form of areas large enough for active recreation use. Additional open space is needed for the recreation ground. Joint open space and drainage areas and linear public open space is not preferred.
- xv. Roads are to border public open space particularly the major areas.
- xvi. A residential road is to be an interface between the urban land and the adjoining farmland and between the primary schools and adjoining residential lots. This is advice from the Department for Planning and Infrastructure.
- xvii. The treatment of the intersections of the Picton-Boyanup Road and Ferguson and Venn and Cleary and a proposed road to the west will have to be addressed.

4. JUSTIFICATION FOR EXPANSION OF DARDANUP TOWNSITE

(Note: Sections 4.1 - 4.9 are the intellectual property of Griffiths Planning, with some modifications, for the purposes of supporting the townsite expansion strategy. Please note figures used in this section are ABS 2005 estimated figures and vary from ABS 2006 figures slightly).

4.1 Western Australian Planning Commission Policy Considerations

Justification of land use change to facilitate the townsite expansion, is provided through State Planning Policy No. 3, which states that proposals for future development shall have regard to:

- State Planning Strategy/Policies
- Population projections provided by the DPI
- Land release plans published by the Western Australian Planning Commission
- Endorsed local planning strategies

Understanding the capacity for expansion of the townsite of Dardanup can be demonstrated by relating the expansion area to population growth and distribution. In support of the expansion of the Dardanup Townsite, strategic considerations are presented outlining:

- Population and Settlement Patterns
- Future Land Supply

4.2 Existing Population and Settlement Patterns

The Shire of Dardanup estimated resident population in 2005 was 10,300 within the context of the Greater Bunbury Region population of 71,800. The town of Dardanup has an estimated population of 483 people (ABS census 2005). Table 2 below provides an indication of the distribution of population within the Greater Bunbury Region in relation to the inland towns, and indicates that inland towns comprise approximately 11.4% of the region's population.

Table 2
Population Distribution of Greater Bunbury Region Inland towns
(Based on ABS 2005 data)

LGA (population)	Town	Estimated population	% Shire	% Shires'	%GBR Population
Harvey (19,100)	Yarloop	658			
	Cookernup	355			
	Harvey	2,825			
	Wokalup	53			
	Brunswick	895			
	Roelands	98			
			4,884	25.6%	
Dardanup (10,300)	Burekup	388			
	Dardanup	483			
		871	8.4%		
Capel (10,700)	Boyanup	837			
	Capel	1,635			
		2 472	23%		
	Total	8,227	100%	(40,100) 20.5%	(71,800) 11.4%

Table 2 indicates that population of the inland towns of the Greater Bunbury Region area is 11.4% of the total population of the Region.

The Bunbury Wellington Region Plan (Western Australian Planning Commission, 1995) presents a settlement hierarchy for the Greater Bunbury Region which includes:

- Regional Centre Bunbury
- District Centre Harvey
- Other Major Towns Capel
 Dardanup
 Brunswick Junction
 Boyanup
 Yarloop
- Other Town sites : Burekup
 Wokalup
 Roelands

Tables 3, 4, and 5 below identify the estimated population of each of the inland townsites in the region based on 2005 ABS census data, and describe the population distribution (total of 8,227) associated with the identified place in the settlement hierarchy.

Table 3

District Centre - Estimated Population 2005 (ABS)

Shire	Town	Estimated population	% of region (71,,800)	% of Shire (19,100)	% of Inland Townsite Population (8,227)
Harvey	Harvey	2,825	4%	14.8%	34.3%

Table 4

Other Major Towns – Estimated Population 2005 (ABS)

LGA	Town	Estimated population	% of Region (71,800)	% of Shire	% of Inland Townsite Population (8,227)
Harvey	Yarloop	658			
	Brunswick	895		12.3 %	
		Total (1,553)			
Dardanup	Dardanup	483		4.7%	
Capel	Boyanup	837			
	Capel	1,635		23.1%	
Total		4,508	6.3%		55%

Table 5

Other Townsites - Estimated Population 2005 (ABS)

Shire	Town	Estimated Population	% of Region (71,800)	% of Shire	% of Inland Townsite Population (8,227)
Harvey	Wokelup	53			
	Roelands	98			
	Cookernup	355			
Dardanup	Burekup	388		3.8%	
Total		894	1.2%		11%

As indicated in the tables 3, 4 & 5 above, the townsite of Dardanup holds the lowest population of the "other major towns" in the Greater Bunbury Region.

Table 2 illustrates that Dardanup and Burekup townsites comprise only 8.4% of the Shire's population, which is below the Region's total of 11.4% of the population accommodated in townsites, and significantly lower than the proportion of the Shires of Capel and Harvey. The Shires of Harvey and Capel have 25.6% and 23% respectively of their population in their inland towns. The Shire of Dardanup's townsites represent 1.2% of the region's population.

4.3 Land Zoning

The "major towns" currently represent 580 hectares of zoned land (See table 6 below), which represents approximately 58% percent of zoned land in the inland townsites, which corresponds to 55% (see Table 6) of the inland townsites' population. The townsite of Dardanup currently has 23 hectares of land, which is significantly less than the "other major towns". The growth of the Dardanup Townsite has increased past high growth projections which predicted 420 persons by 2011 under the Bunbury Wellington Region Plan. A key influence, and trigger for its growth is the availability of sewerage.

Table 6

Land Zoned Residential for Inland Towns in the Greater Bunbury Region.

Hierarchy	Town	Urban Zoned Land (ha) under TPS	Total
District towns	Harvey	230ha	230ha (23%)
Other major towns	Yarloop	40ha	
	Dardanup	23ha	
	Capel	202ha	
	Brunswick	98 ha	
	Boyanup	217ha	580ha (58%)
Other townsites	Burekup	31ha	
	Roelands	83ha	
	Wokalup	13ha	
	Cookernup	60ha	187ha (19%)
	Total		997ha (100%)

The issue at Boyanup, Brunswick and Yarloop, and the District Centre (Harvey) preventing short term release of lots is a lack of structure planning on zoned land and co-ordination and supply of infrastructure. Conversely the issue at Dardanup is a lack of zoned land identified, whilst the town has capacity for sewer and water infrastructure to be expanded.

In summary, Dardanup Townsite has an estimated population of 483, 4.7% of the Shire's population and 23 ha of land zoned for residential purposes which is significantly lower in both respects than other major towns in the region. Other comparable major towns, Brunswick and Capel have 98ha and 202ha of land zoned for residential purposes with estimated populations of 895 and 1,695 respectively.

4.4 Land Requirements Using Scenario Planning

A basic analysis has been utilised to develop a 'conservative scenario' for settlement patterns that aids a general understanding of future residential land supply needs for the Shire of Dardanup Townsites towards 2031. The methodology builds on existing policy objectives for settlement distribution and existing settlement distribution patterns, to produce a realistic growth scenario.

4.4.1 Background to Conservative Scenario

A basic analysis using *Western Australia Tomorrow – Population Report No.6* (Western Australian Planning Commission, November 2006) and *Network City Discussion Papers* provided information to identify population distribution through the Greater Bunbury Region, and to develop a 'conservative scenario' to aid a general understanding of the current and future residential land supply needs for inland towns in the Greater Bunbury Region towards 2031. The methodology builds on existing policy objectives for settlement distribution and existing settlement distribution patterns, to produce a realistic growth scenario which ensures that its recommendations would not pre-empt future strategic planning guidelines. The scenario conclusions demonstrate a growth scenario for inland townsites that will not prejudice the overall outcomes of future strategies, and that can be considered whilst strategies are a "work in progress" such as the Western Australian Planning Commission South West Planning Framework and other local government planning strategies.

In an ideal sustainability sense, future population distribution would be limited to the current urban growth boundaries, to accommodate 60% of additional dwellings through increasing densities (*Network City, Western Australian Planning Commission, 2003*). If applied to the Greater Bunbury Region this would represent 73% of future population within the existing urban boundaries, and 27% of the future populations would then be located within the region towns and rural areas, with the majority focusing on rural towns to limit further rural fragmentation. This is one of many settlement scenarios which may guide planning across the Greater Bunbury Region. This "sustainable scenario" is perhaps not realistic given the current landuse pressures, settlement patterns and development options being pursued.

The 'conservative scenario' as mentioned in the paragraph above, demonstrates that the expansion of townsites, in this case, Dardanup, will not implicate future land supply needs toward the development of the Greater Bunbury Region townsites or compromise urban centres of the Greater Bunbury Region.

The conservative scenario suggests that by 2031, Greater Bunbury inland towns will absorb approximately 17% of the region's population (101,600) this is still a low average, however, an increase on the current 11.4%. It is estimated that the population of the region will be 101,600 in 2031 and 17% of

the estimated population of 2031 equates to a population of 17,272. The scenario is based on the consolidation of 60% of future development within existing urban boundaries (Greater Bunbury Urban Area as identified in the Greater Bunbury Land Release Plan 2002) and in limited greenfield expansion of urban areas, and restricting rural subdivision to reduce the percentage of population accommodated in rural settlement areas to 5% or less of the Greater Bunbury Region future population by 2031.

Table 7 below demonstrates the population distribution throughout the region based on the scenario described above, and illustrates the number of dwellings potentially required to house the future population based on two different house occupancy ratios (2.4 persons per dwelling and 2.3 persons per dwelling).

Table 7
Population Distribution and Additional Dwellings

Greater Bunbury Region	Greater Bunbury Urban Area	Inland Towns	Rural	Total
Population Distribution	78%	17%	5%	100%
Population 2031 (Network City, WAPC)	79,248	17,272	5,080	101,600 ¹
Total Dwellings (Network City, 2.4 dwelling occupancy rate)	33,020	7,196	2,117	42,333
Total Dwellings 44,175 (2.3 dwelling occupancy rate)	34,456	7510	2,209	44,175
Existing Dwellings 2006 (28,270)	22,050 (78%)	3,251 (11.5%)	2 969 (10.5%)	28,270
Additional Dwellings by 2031 (Network City) (2.4 dwelling occupancy rate)	10,970	3,945	-852 ²	14,063
Additional Dwellings by 2031 (2.3 dwelling occupancy rate)	12,406	4,259	-761 ²	15,904

¹ The population figure of 101,600 is sourced from Network City population estimates provided by WAPC.

² The negative dwelling numbers represent a consolidation of existing townsites into the Greater Bunbury urban area, for example, the Myalup-Binningup area may be incorporated into the urban area. It does not represent a decline in dwellings in the rural areas, rather a re-classification of land currently denoted as rural into urban or inland towns.

4.5 Existing Population and Dwellings in Townsites

Number of dwellings in the hierarchy has been estimated and is indicated in Table 8 below.

Table 8

Existing Population and Dwellings in Townsites

Towns Hierarchy	Current population breakdown (total population 8,227 see table 2)	Estimated dwellings (2006) based on Table 2 (2.3 dwelling occupancy rate)
District Centre (Harvey)	2,825 (34%) (From Table 3)	1,228
Other major towns	4,508 (55%) (From Table 4)	1,960
Other townsites	894 (11%) (From Table 5)	389
Total	8,227	3,577

Based on the conservative scenario whereby 17% of the region's population will be accommodated in Greater Bunbury Region towns, where the balance of population reflects the current hierarchy and population distribution, Table 9 below suggests population growth and dwelling requirements for inland towns to 2031.

Table 9

Settlement Hierarchy/Distribution in 2031 for Inland Towns

(17% of the Greater Bunbury Region Population from Table 7)

Towns Hierarchy	%	Population (101,600 × 0.17 = 17,272)	Total dwellings (Network City) (2.4 dwelling occupancy rate)	Total dwellings (2.3 dwelling occupancy rate)
District Centre	34% (Table 3)	5,873	2,447	2,553
Other major towns	55% (Table 4)	9,500	3,958	4,130
Other townsites	11% (Table 5)	1,899	791	826
Total	100%	17,272	7,196	7,509

Table 9 shows that an additional 7,200 - 7,500 dwellings are required in the Greater Bunbury Region Inland Towns to house the estimated 2031 population.

4.6 Additional Dwellings for Inland Townsites to 2031

Table 10 below indicates that additional dwelling requirements will range from 3,900 to 4,300 for Greater Bunbury Inland Townsites. Additional dwellings required to meet population growth of inland townsites will be located within existing zoned areas and in expansion of existing townsite settlement areas.

Table 10

Additional Dwellings for Inland Townsites to 2031 (Based on table 8 and 9)

Towns Hierarchy	Existing Dwellings 2006	Estimated dwelling requirement 2031 (2.4) (See dwelling occupancy rate – Table 9)	Network City (2.4 dwelling occupancy rate)	Estimated dwelling requirement 2031 (2.3) (See dwelling occupancy rate – Table 9)	2.3 dwelling occupancy rate
District Centre	1,105	2,447	1,342	2,553	1,448
Other major town	1,788	3,958	2,170	4,130	2,342
Other townsites	358	791	433	826	468
Total Additional Dwellings			3,945		4,258

Table 5 indicates the amount of land zoned 'Residential' or 'Urban' under current local planning schemes and the Greater Bunbury Region Scheme. The estimated total amount of zoned residential land is 997 hectares. To provide a very general guide based on the number of dwellings estimated within region (Table 8) (3,251 dwellings) equates to approximately 3.3 dwellings per hectare (although some areas are zoned and undeveloped).

The amount of undeveloped/unsubdivided residential zoned land within the inland townsites has not been calculated. This figure has been requested from DPI, Industry and Infrastructure branch who prepare the Country Land Development Program. Although a figure has not been provided it could be assumed that between 10 to 20% of additional dwellings required may be located in existing zoned land upon subdivision, or through consolidation of densities into the long term. This figure may be higher in some areas, and lower in other areas. For example, the townsite of Dardanup has no further zoned land that may be subdivided, however Burekup has large tracts of unplanned zoned land.

Table 11 translates additional dwellings to additional land required, and for the purposes of this exercise reduces the required amount of land by 15% to address the location of additional dwelling requirements into existing zoned land (infill). This cannot be quantified as the information is not available.

To translate additional dwelling requirements to additional land required has been estimated using two figures.

Three dwellings per hectare (current density), and seven dwellings per hectare. Essentially the three dwellings per hectare relates to low density development (Special Residential, and reflects current average densities) and seven dwellings per hectare relates to the current density in Perth middle and inner suburbs.

4.7 Estimated Additional Residential Zoned Land Required to 2031

Table 11

Estimated Additional Residential Zoned Land Required to 2031

Hierarchy	Network City Figures 2.4 dwelling occupancy rate		2.3 dwelling occupancy rate	
	7 dwellings per hectare average	3 dwellings per hectare average	7 dwellings per hectare average	3 dwellings per hectare average
District Towns (34%)	192	447	207	482
Other Major Towns (55%)	310	723	334	781
Other Town Sites (11%)	62	145	67	156
Total	3945/7 = 564ha (Table 10)	3945/3 = 1,315 ha (Table 10)	4258/7 = 608ha (Table 10)	4258/3 = 1,419 ha (Table 10)
Total less 15%	479 ha	1,118 ha	517 ha	1,206 ha

Through this analysis and using the conservative scenario it can be demonstrated that between an additional 479 to 517 hectares of (serviced) land within regional towns will need to be provided to support inland townsite population toward 2031 population. Based on current ratio of "other major towns" providing 58% (see Table 6) (and generally in keeping with Table 11 above) of the zoned land for towns in the region, between 310ha to 334ha (Other Major Towns – Table 11) may need to be provided through expansion of the "other major towns" by 2031.

The total area for other major towns will then increase from 580ha to 890ha (Other Major Towns – Table 6). Should this land area be equitably distributed through each of the major townsites, this would equate to approximately to 178 hectares ($890/5 = 178$) for each town (see Table 6 for Other Major Towns). The Boyanup and Capel townsites already exceed this land area. However, Dardanup Townsite only has 23 hectares and Burekup has 31 hectares.

Using the above rationalization, the additional area of the Shire of Dardanup Townsites should then equate to approximately an additional 155 ha ($23 + 155 = 178$) for the Dardanup Townsite, and 147 ($147 + 31 = 178$) ha for the Burekup townsite.

More conservatively however, and to recognise a level of anticipated growth at larger townsites within the region, another methodology would be to consider distributing additional land requirements equitably for each town within each Shire. Therefore, the Shire of Dardanup with Dardanup and Burekup could conservatively absorb between 100 and 120 hectares of additional land for its townsites.

From this assessment, it is demonstrated that the expansion of Dardanup may accommodate a minimum of 100 hectares (10% of the total zoned land for regional towns) toward 2031 without compromising expansion and consolidation of other urban areas or townsites.

The conclusion from this discussion of land supply based on a conservative scenario resulted in an estimated additional 100 hectares of residential land recommended to be provided for the townsite of Dardanup. Based on an average density of 7 dwellings per hectare and 2.3 persons per dwelling translates to a townsite that may accommodate an additional 1610 people ($100 \times 7 \times 2.3 = 1610$), or a total population of approximately 2000 people by 2031. This figure represents 1.9 % of the region's population by 2031 which reflects a marginally higher proportion of population. This figure is also the result of the conservative scenario which provides for growth without compromising expansion and consolidation of other urban areas or townsites within the region.

4.8 Dardanup Townsite – Indicative Land Release

The total land area of the townsite would therefore not exceed 123 hectares with a minimum population of approximately 2,000 people by 2031. Therefore it is considered that Dardanup Townsite could expand to a minimum of approximately 123 hectares in 25 years.

Major growth of townsites should be facilitated in the next 15 years whilst urban consolidation objectives for the Greater Bunbury Urban Area are embraced, and district level structure planning is undertaken for areas north and east of the existing urban area boundary. To facilitate growth and development of townsites will reduce temptation to fragment rural land and priority agricultural land whilst the urban development areas are being planned. It has been estimated that there is approximately 5 -10 years land supply available in the Bunbury urban area. When this runs out and district structure planning is being undertaken, an emphasis on townsite development should be supported, particularly where the capacity for extension of infrastructure services is available, and developers intentions are realistic.

By 2015 to 2020 a review of the local government strategies (including Dardanup Townsite Expansion Strategy) will be required, the south west planning framework will be in its implementation phases with a settlement hierarchy clearly stated, and the sustainability charter will be governing our processes.

This strategy will not prejudice other major towns or the hierarchy. If, however, broader strategic initiatives recommend that the higher proportion of the region's population will be absorbed in the inland towns, then the planning for expansion of the townsite will provide a good basis for consolidation or further sustainable expansion.

To enable subdivision and development of the land by 2031, zoning should be incorporated into local planning schemes by 2025. It is recommended that 80% of this become available by 2015 for the reasons of land supply explained in the paragraph above. Therefore staging of the 100 hectares could be proportioned as follows:

2006 – 2010 – 40 ha (40%)
2010 – 2015 – 40 ha (40%)
2015 – 2025 – 20 ha (20%)

5. EXPANSION STRATEGY

5.1 Residential Expansion Area

Based on the justification provided in Section 4 it is proposed to expand the town by approximately 100ha to satisfy estimated population demand until 2031. Strategy of the expansion area will be controlled by detailed structure planning (See Figure 3 – Strategy Map).

5.2 Accessibility and Convenience

The expansion areas provide ready accessibility and convenience for bulk of the additional population. The greatest distance from any extremity of the expansion area to either the retail area or a primary school is approximately 1000 metres. Therefore, the majority of the population in the expansion area will be within comfortable walking or cycling distance to the existing and proposed facilities.

5.3 Traffic and Road Capacities

A traffic study was undertaken by Riley Consulting (September, 2007) for an expansion area that was slightly larger than the proposed area. This study concluded that the level of service of the key roads – Ferguson, Charlotte, Hayward and Fees – would not be negatively impacted by the proposed expansion.

The Strategy Map indicates places where there will need to be road infrastructure upgrades.

5.4 Retail Shop and Offices Precinct – Mixed Use Development

It is proposed that development in this precinct will be mixed use with shops, offices and residential. Residential could be at either the rear of the lot or on an upper storey of a development. Residences at the rear would be preferable as they would provide a compatible interface with the surrounding residential area.

The existing lots within this precinct have ample space to accommodate a mix of uses as well as car parking. Some road widening may be required for on-street car parking.

5.5 Mixed Business Precinct

A Mixed Business Precinct is shown on Lot 1 and that portion of Lot 76 located between the railway line and the Boyanup-Picton Road. This location was previously agreed to by Council.

The land should be zoned “Restricted Use” so that uses can be controlled and the precinct does not develop into a household shopping precinct to the detriment of the Retail Shop and Offices Precinct.

The types of uses considered appropriate for this Precinct are showrooms and warehouses, trade displays, hardware and farm supplies, art/craft studios and sales, plant nursery and veterinary clinic.

Direct access from Picton/Boyanup Road will not be permitted and an internal service road will be required. No development shall occur until Structure Planning has been approved.

5.6 Service Trades/Light Industrial Precinct

An area on Fees Road is designated for the Precinct. It is reasonably close to the town but is located on a separate road where there will not be a mixing of domestic and industrial traffic. Subject to arrangements being made with Water Corporation the site can be serviced with reticulated water and sewerage.

This Precinct should be zoned "Restricted Use". Examples of the types of uses that would not be permitted are a composting facility, dog kennels, fuel storage, agricultural feed processing, incineration plant, metal fabrication or finishing, scrap metal depot and/or recycling works and an autowreckers yard. All of these have off-site emissions, particularly noise, that could not be controlled with land use buffers. Maximum lot areas and amalgamation restrictions will be required as part of the Structure Planning process to maintain an acceptable level of residential amenity. (Separation Distances between Industrial and Sensitive Land Uses, Guidance No.3, Environmental Protection Authority 2005).

No development should occur until Structure Planning has been approved.

5.7 Existing Veterinary Clinic

The veterinary clinic is an existing use on land that is presently zoned "Rural" and as such is a use that is not permitted unless with Council approval. Council have agreed to allow the use to continue albeit under a different zone. However, residents in the proposed southern expansion area should be aware that they may be subject to noise from the clinic such as barking dogs.

Separation distances are unrealistic. The Environmental Protection Authority generic separation distances indicate that 500 metres is required between dog kennels and noise sensitive premises such as residences. There are existing residences within 100 metres of the veterinary clinic. It is considered more realistic and preferable for a 70A Notification to be placed on the certificates of title of lots that are in the proposed southern area and that are within 500 metres of the clinic notifying the owners that they may experience some noise that may be a nuisance.

5.8. Greater Bunbury Region Scheme

The land contained within the expansion area will require an amendment to the Greater Bunbury Region Scheme as it is currently zoned Rural and will need to be rezoned Urban.

6. PLANNING POLICY STATEMENT

6.1 Framework for Future Development – Rezoning/Structure Planning

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.

6.2 Residential

Residential planning will be guided by the principles in *Liveable Neighbourhoods (Edition 3)*.

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.

The Dardanup Primary School is to be bound wherever possible with a road.

Adequate land use buffers shall be required between residential and the Service Trades/Light Industry Precinct.

6.3 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.

Approximately 3ha of public open space is to be added to the existing Recreation Ground. Also it is proposed to make provision for approximately 1.5ha to be added to the existing school oval area. This will allow for development of a shared oval facility between the Education Department of WA and the Shire of Dardanup.

The Shire shall use public open space cash in lieu payments to fund extensions and upgrading of the existing recreation ground and school oval. Detailed structure planning will need to demonstrate how the public open space is funded and compensation made for and requirement over the required 10%. Funding for the public open space is provided for in clause 3.15.7.4 (IX) of the Shire of Dardanup Town Planning Scheme No.3 and Council shall require structure plans to address the funding issue for public open space.

The following table is an indicative budget for the provision of public open space in the Dardanup Townsite Expansion area:

GROSS SUBDIVISIBLE AREA & PUBLIC OPEN SPACE PROVISION (ha)			
Site Area			100.00
Deductions			
Commercial & Light Industrial Areas	10.83	10.83	
Gross Subdivisible Area			89.17
Public Open Space @ 10%			8.92
Public Open Space Contribution			
May comprise:			
- minimum 80% unrestricted public open space		7.13	
- minimum 20% restricted use public open space		1.78	
			8.92 (a)
Unrestricted public open space sites			
Extension to oval shared with Primary School		1.55	
Extension to existing Recreation Ground		3.00	
Local Parks 2 @ 3000m ²		0.60	5.15 (b)
Balance of cash-in-lieu contributions (a – b)			3.77
POS to be purchased			
1.4 ha from lot 3		1.4	
1.5 ha from land adjacent to school site		1.5	
Total POS to be purchased			2.9
Balance cash-in-lieu contribution			0.87

6.4 Retail Shop and Offices Precinct

The Retail Precinct shall be zoned "Commercial".

6.5 Mixed Business Precinct

The Mixed Business Precinct shall be zoned "Restricted Use" for a range of uses including showrooms, warehouses, trade displays, hardware and farm supplies, art/craft studios and sales, plant nursery and veterinary clinic. All uses shall be subject to an Application for Planning Consent.

Direct access from Picton/Boyanup Road will not be permitted and an internal service road will be required. No development shall occur until a Structure Plan has been approved.

6.6 Service Trades/Light Industrial Precinct

The Service Trades/Light Industrial Precinct shall be zoned "Restricted Use" and all uses shall be subject to an Application for Planning Consent. The applications are to demonstrate that there will be no adverse impacts in terms of dust, noise or odour, on the residential premises in the immediate vicinity and in the town.

A boundary road is to extend around the "Restricted Use" area.

No development shall occur until a Structure Plan has been approved.

Maximum lot areas should be a condition of subdivision and structure planning to minimise the potential for land use conflict. Maximum lot areas will maintain the scale of businesses that can occur in this Precinct. Adequate land use buffers shall be incorporated into the Structure Plan and shall include roads and public open space etc.

6.7 Service Infrastructure

No development is to proceed until it can be serviced by reticulated water and sewerage.

6.8 Infrastructure Upgrades

Council will request that the Western Australian Planning Commission impose a condition of subdivision requiring a contribution towards road upgrading, streetscaping and traffic treatments and for possible drain upgrading for locations identified on the Strategy Map in accordance with Council Policy.

Council will request that the Western Australian Planning Commission impose a condition of subdivision requiring a contribution towards road upgrading and construction of community facilities identified in Council's "Community Facilities Plan" in accordance with Council Policy.

6.9. 70A Notification

Council will request that the Western Australian Planning Commission impose a condition of subdivision requiring a 70A Notification to be placed on certificates of title that are within 500 metres of the veterinary clinic in the proposed southern area notifying owners that they may experience noise that may be a nuisance.

6.10 Rail Corridor Boundaries

All lots abutting rail corridors boundaries shall be fenced to a minimum height of 1.8 metres. This requirement shall be recommended as a condition of subdivision.

6.11 Land Use Buffers

A boundary road shall extend around the residential interface wherever possible. The boundary road shall incorporate a vegetated buffer design generally in accordance as shown below.

Vegetation Buffer Design

- Minimum total width of 40m including 10m separation, 10m plantings and 10m separation.
- Include an area of at least 10m clear of vegetation or other flammable material on either side of the vegetated area.

|... 10m clear...|.....20m vegetation.....| 10m clear...|

- Contain random plantings of a variety of tree and shrub species of differing growth habits, at spacings of 4-5m for a minimum of 20m.
- Include species with long, thin and rough foliage.
- Provide a permeable barrier which allows air to pass through the barrier. A porosity of 0.5 is acceptable (approximately 50% of the screen should be air space).
- Foliage is from base to crown.
- Include species which are fast growing and hardy.
- Preferably includes local native species

Applications for development, where vegetated buffers are proposed, should include a landscape plan indicating the extent of the buffer, the location and spacing of the proposed and existing trees and shrubs and a list of tree and shrub species to be planted. The proposal should also contain details concerning the proposed ownership of the vegetated buffer and the means by which the buffer is maintained.

This buffer will also serve as drainage function on the eastern and southern boundaries of the Dardanup Townsite Expansion area.

The Dardanup Townsite Expansion proposal is indicative of the Shire's direction for townsite expansion however it is subject to further detailed planning at the time of rezoning and subdivision.

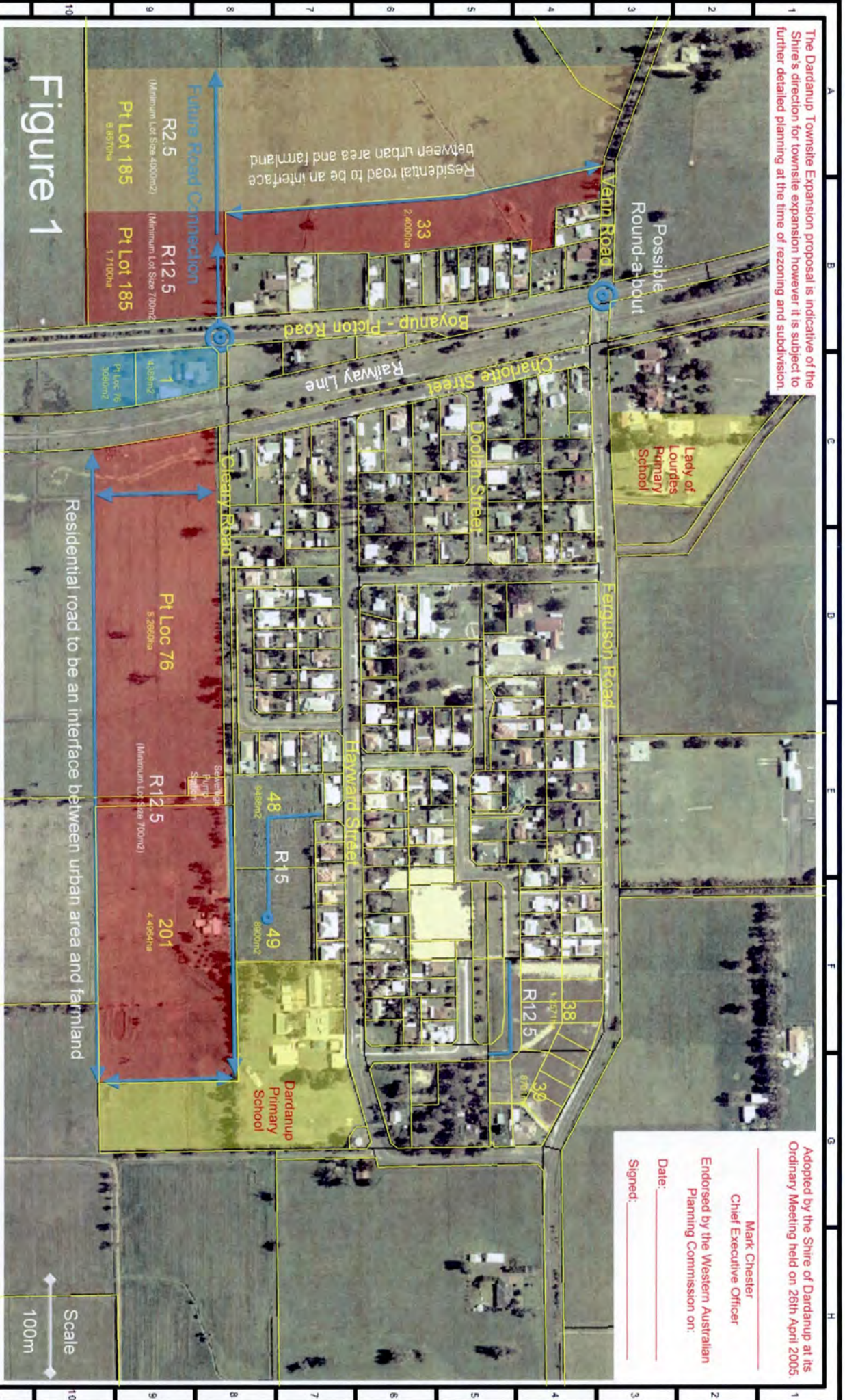


Figure 1

DRG No: T&P020-08 Fig 1
 DATE DRN: 12-02-08
 SCALE: AS SHOWN
 DRN: M. JONES / T&P Design

**DARDANUP TOWNSITE
 EXPANSION STRATEGY
 2005**

- Residential R12.5 Expansion Areas
- Special Residential R2.5 Expansion Area
- Mixed Business Expansion Area
- New Road Connections
- Possible Round-a-bout

Scale
 100m



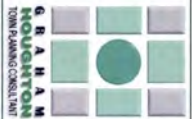
Adopted by the Shire of Dardanup at its Ordinary Meeting held on 26th April 2005.

Mark Chester
 Chief Executive Officer

Endorsed by the Western Australian Planning Commission on:

Date: _____

Signed: _____



DARDANUP TOWNSITE ZONING AND KEY USES

SCALE 1:6,000 ON A4 | DRG No: T&P020-08 | DATE DRN: 13-02-08
 AUTHORISED: GRAHAM HOUGHTON TOWN PLANNING CONSULTANT

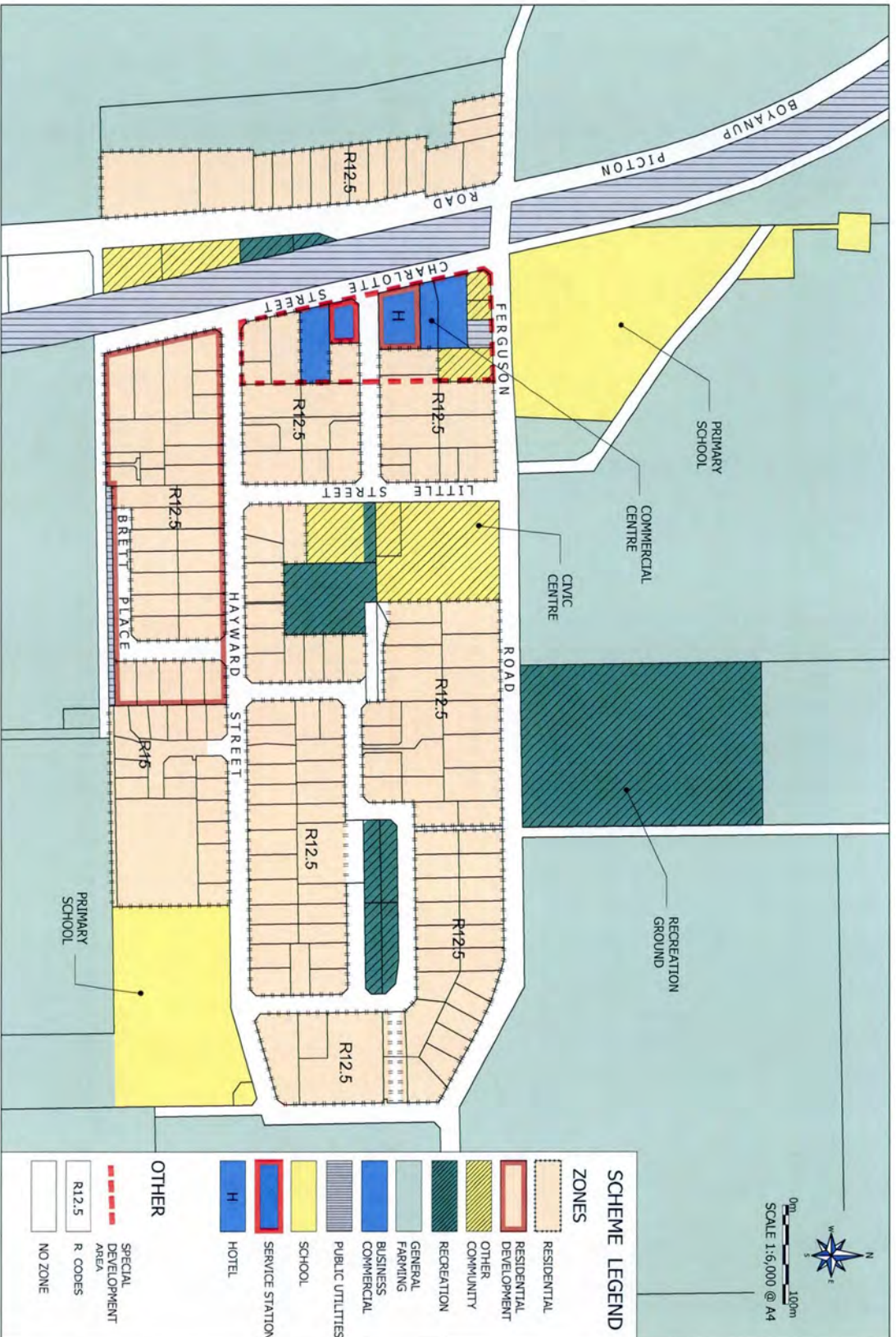


Figure 2

PLANNING POLICY STATEMENTS

This Strategy Plan serves as a guide to future detailed structure planning and rezoning amendments.

Subdivision and development within the identified expansion areas is not to occur until such time as the land is appropriately zoned in both the Greater Bunbury Region Scheme and the Local Planning Scheme and a detailed Structure Plan has been endorsed by the Shire and the WAPC.

Structure Plans and Scheme Amendments may apply to either the whole expansion area or parts thereof.

Subdivision of land will only be supported where consistent with the staging requirements of this Strategy.

The vision for Dardanup is to achieve an attractive, well serviced and sustainable village within a rural setting, with a population of up to 4,000 persons. All Structure Plans are to demonstrate consistency with this vision.

Structure Plans are to be prepared in accordance with the provisions of the Local Planning Scheme No. 3 applicable to the 'Development' Zone and 'Liveable Neighbourhoods' design policy.

If a Structure Plan is submitted for a portion of the identified expansion area only, it is to be accompanied by a Concept Plan for the balance of the expansion area which identifies how the proposal will link with, and be complementary to, the future planning of surrounding and adjoining Structure Plan areas.

As a minimum, the areas of public open space as shown on the Strategy Plan are to be identified for public open space purposes on any Structure Plan and ceded to the Crown as a condition of subdivision. The vesting and long term management of POS areas is to be resolved at the Structure Plan stage.

Structure Plan(s) are to identify vegetated buffers at the interface of residential expansion and the surrounding rural area which are to be inclusive of roads and screen vegetation. If necessary, Structure Plans are to identify suitable measures for mitigating noise from major road or rail infrastructure.

Structure Plans are to identify infrastructure upgrades to be undertaken by the subdivider, which as a minimum, will be inclusive of the road upgrades identified on the Strategy Plan.

Structure Plan(s) are to be accompanied by the following documents:

- A Fire Management Plan (FMP) or confirmation from the responsible agency that the Structure Plan meets fire protection requirements and that a FMP is not necessary;
- A community needs analysis which is to determine the requirement for any necessary community facilities and infrastructure and the subdividers responsibility for their provision, including monetary contributions consistent with draft SPP 3.6;
- A Sustainability Outcomes and Implementation Plan which details the targets and method of delivery in respect to 'Sustainability Outcomes' inclusive of:
 - On-site power generation;
 - On-site water capture and re-use;
 - Re-use of grey water;
 - Correct housing orientation for passive heating and cooling;
 - Provision of affordable housing; and
 - Investigate the feasibility of the provision of public transport and the integration of the subdivision and future built form with public transport.
- A Local Water Management Strategy.

Structure Plan(s) are to include a requirement for the preparation and endorsement of Design Guidelines prior to subdivision. Design Guidelines are to ensure a theme of development which is consistent with the vision for Dardanup.

Subdivision and development of land identified for retail, mixed business and light industry purposes on the Strategy Plan is not to occur until the land is suitably zoned and a Structure Plan endorsed by the Shire and WAPC.



LEGEND

- MIXED BUSINESS
- PUBLIC OPEN SPACE
- SERVICE TRADES / LIGHT INDUSTRY
- DEVELOPMENT STAGE BOUNDARY

ENDORSED STRUCTURE PLAN
 To provide a framework for future detailed planning at the subdivision and development stage.

Date 23/7/2019
 Delegated under s.16 of the Planning & Development Act 2005

[Signature]
Chief Executive Officer

AMENDMENT DESCRIPTION	DESIGNED	DO NOT SCALE	DRAWING TITLE	SHIRE OF DARDANUP
1	DRAWN		DARDANUP TOWNSITE	
2	DRAWN DATE		EXPANSION STRATEGY MAP	
3	AUTHORISED R. QUINN			
4				
5				

DRAWING NO.	SHEET
T&P020-08	1 of 1
REV.	5