



Department of Planning,
Lands and Heritage



Picton Industrial Park Southern Precinct

District Structure Plan

October 2018



WAPC Chairman's foreword

The proposed Picton Industrial Park Southern Precinct represents the latest planned expansion of land identified for industrial development as part of the wider Preston Industrial Park in Greater Bunbury. The area is zoned industrial and industrial deferred in the Greater Bunbury Region Scheme and this district structure plan sets out the key principles for development and associated infrastructure.

A healthy and flexible supply of industrial land which can be brought forward for development is a key catalyst for successful economic development in Greater Bunbury.

Picton South benefits from an excellent location for industrial development, being well positioned to take advantage of high quality transport links to the Port of Bunbury via the upgraded Willinge Drive and the proposed extension to the Bunbury Outer Ring Road. The latter will provide a freeway standard road around Greater Bunbury and improve links north to Perth and Peel, and south to the rest of the South West region.

The South West is one of the fastest growing regions in Western Australia. This district structure plan, together with the Wanju and Waterloo Industrial Park district structure plans, represents an important stage in planning for the region's future.

David Caddy

Chairman

Western Australian Planning Commission

Executive summary

The Picton Industrial Park Southern Precinct is located to the east of Picton, an existing industrial area in the eastern part of Greater Bunbury, the regional centre for the South West of Western Australia.

This document, the *Picton Industrial Park Southern Precinct District Structure Plan* (DSP), identifies the principal planning considerations to be taken into account in successfully developing the DSP area predominantly for industrial development. It represents the latest DSP for the wider Preston Industrial Park (2950 hectares), originally identified as a long-term industrial area for Greater Bunbury in *Bunbury Wellington Region Plan* (Western Australian Planning Commission (WAPC), 1995) and then in *Industry 2030: Greater Bunbury Industrial Land and Port Access Planning* (Industry 2030) (WAPC, 2000).

This plan provides a high-level strategic outline of the planning requirements to accommodate the proposed industrial uses and associated infrastructure for the DSP area, together with zoning for Rural and Regional Open Space reserves. It will provide the strategic planning framework for more detailed local structure plans.

The former Office of the Environmental Protection Authority (OEPA), now part of the Department of Water and Environmental Regulation, previously provided advice and guidance on the environmental issues associated with the remnant vegetation within the Preston Industrial Park (EPA, 2008) and identified key areas for retention. These are reflected in this DSP.

Table A: Areas of precincts and zones and reserves

Precincts and land use	Area (ha) ¹
Total area	548
Precinct 1	29
Precinct 2	347
Precinct 3	90
Precinct 4	82
Land use zones and reservations:	
Residential	0
Total industrial	436
(industrial deferred)	(126)
(already subdivided)	(70)
Primary Regional Roads	6
Regional Open Space	41
Rail	66
Public space	5
Public Utilities	5

¹ All areas in the district structure plan are rounded to the nearest hectare. Totals will sometimes differ marginally from the sum of individual parts.

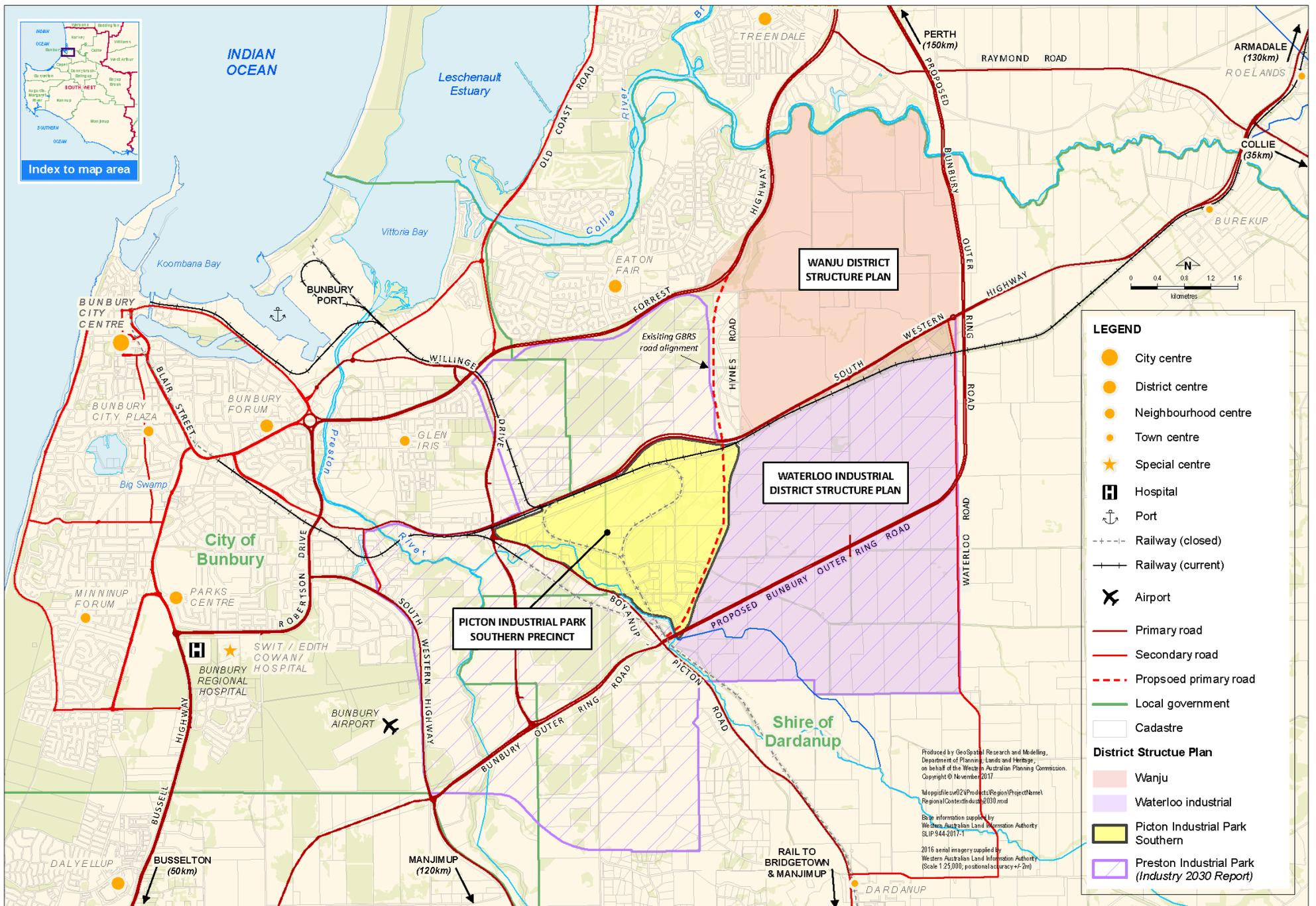


Figure 1: Locational context for Picton Industrial Park Southern Precinct district structure plan area

Contents

Disclaimer

This document has been produced by the Department of Planning, Lands and Heritage on behalf of the Western Australian Planning Commission. Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the Government, its employees and agents are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be, in respect of any representation, statement, opinion or advice referred to herein. Professional advice should be obtained before applying the information contained in this document to particular circumstances.

© State of Western Australia

Published by the
Western Australian Planning Commission
Gordon Stephenson House
140 William Street
Perth WA 6000

Locked Bag 2506
Perth WA 6001

Published October 2018

website: www.dplh.wa.gov.au
email: corporate@dplh.wa.gov.au

tel: 08 6551 8002
fax: 08 6551 9001
National Relay Service: 13 36 77

The Department of Planning, Lands and Heritage owns all photography in this document unless otherwise stated.

This document is available in alternative formats on application to Communication Services.

Executive summary

iii

Part one:

Implementation

1

1. District structure plan area 1
2. Operation 3
3. Staging 4
4. Subdivision and development requirements 6

Part two:

Explanatory section

11

1. Planning background 11
2. Site conditions and constraints 21
3. Land use and subdivision requirements 34

Appendices

Appendix one: Reference documents

40

Appendix two: Abbreviations

41

List of maps

Figure 1	Locational context	iv
Figure 2	District structure plan	2
Figure 3	Picton South DSP area precincts	5
Figure 4	Greater Bunbury sub-regional structure plan 2013	16
Figure 5	Greater Bunbury Region Scheme	20
Figure 6	Environmental assets	22
Figure 7	Soil and landform	24
Figure 8	Existing Vegetation Classes	27
Figure 9	Pre-development bushfire hazard level assessment	28
Figure 10	Post-development bushfire hazards	30
Figure 11	Identified Aboriginal heritage sites	32
Figure 12	Key elements of the District Water Management Strategy	38

Part One: Implementation

1. District structure plan area

- 1.1 The Picton Industrial Park Southern Precinct² district structure plan (DSP) area represents approximately 548 hectares, within the City of Bunbury and Shire of Dardanup municipalities, of the original 2950 hectares identified in the *Industry 2030* document (WAPC, 2000) for industrial development in the Preston Industrial Park. Of the 548 hectares approximately 436 hectares are zoned for industrial uses, as either industrial or industrial deferred, in the *Greater Bunbury Region Scheme* (GBRS).
- 1.2 The DSP area is relatively flat and low-lying land, with the bulk of the area lying between the 10 and 20 metre Australian height datum (AHD) contour lines, generally gently sloping downwards from east to west.
- 1.3 There are some significant areas of remnant vegetation within the DSP area which represent part of a regionally significant ecological north-south linkage between the Preston and Ferguson rivers to the Collie River. The Ferguson River also provides an east-west vegetation linkage. The majority of the DSP area, and wider Preston Industrial Park area, consists predominantly of the Southern River complex.
- 1.4 The Southern River complex is below the target level for native vegetation retention on the Swan Coastal Plain of at least 30 per cent of the pre-clearing extent of the ecological communities, while the Guildford complex, which includes much of lot 200 and lot 104 in Precinct 2, has only five per cent of its original extent on the Swan Coastal Plain.
- 1.5 The DSP area lies within the Leschenault Estuary catchment, and is covered by the Leschenault Estuary Water Quality Improvement Plan. The majority of the area is serviced by the Water Corporation's East Picton Main Drain, which also services a small portion of the Picton North DSP area. This drain discharges

² Within this document the DSP area is shortened to 'Picton South'.

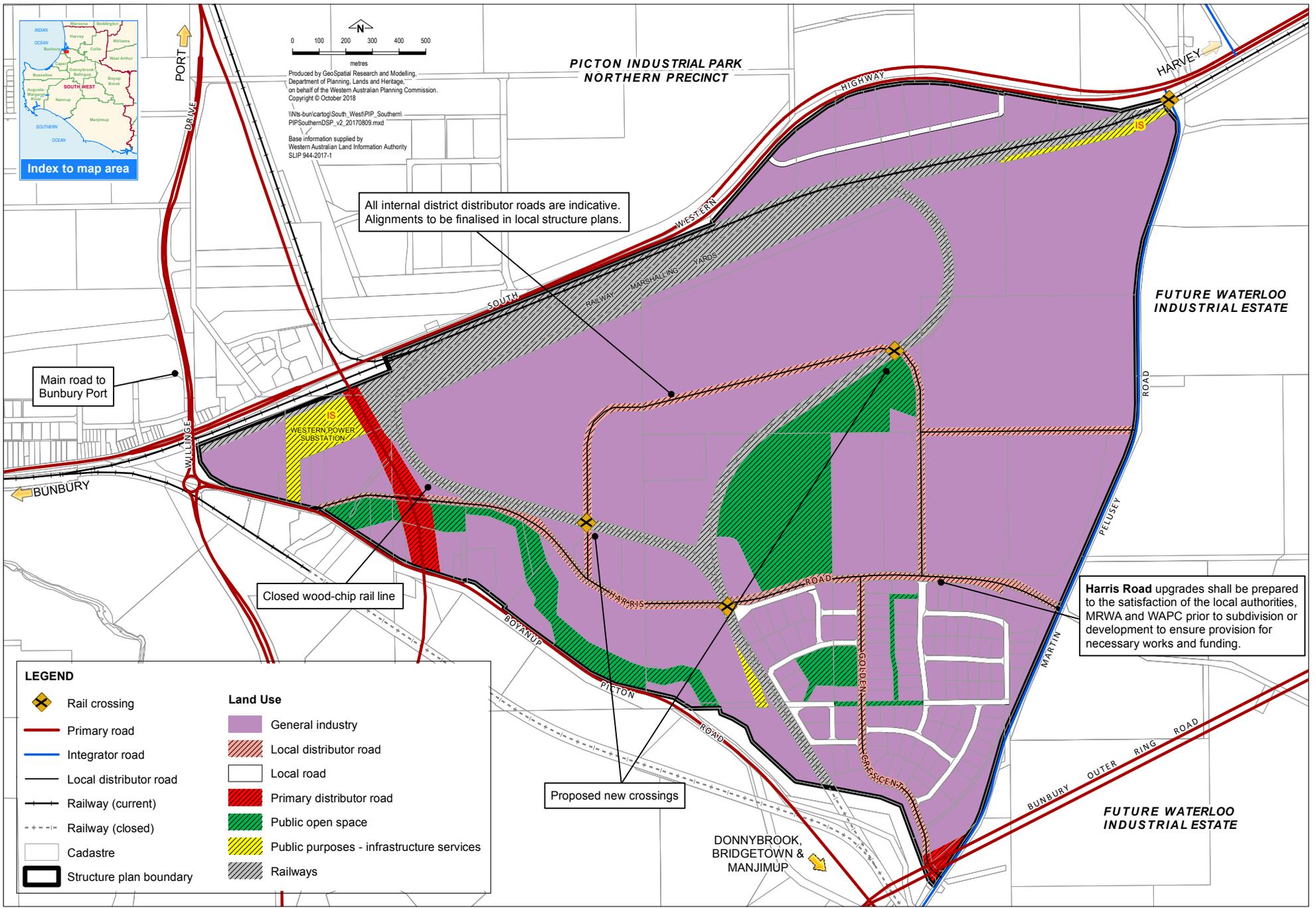


Figure 2: Picton Industrial Park Southern Precinct district structure plan

into the Ferguson River, which runs broadly parallel to the south western boundary of the DSP area. A small portion of the north-eastern part of the DSP area discharges eastwards into the Vindictive Drain.

- 1.6 Regional Open Space is already reserved in the GBRS along the banks of the Ferguson River and it is proposed that the parts of lots 104 and 200 that are not cleared should also be reserved as Regional Open Space through an amendment to the region scheme.
- 1.7 A rail reserve loop runs through the site connecting the disused Picton-Northcliffe railway line with the Bunbury-Perth railway line.
- 1.8 To define the DSP area into more succinct and coherent development areas for the purposes of this DSP the plan area is divided into four precincts, see Figure 3, with the following areas:
 - Precinct 1 – 29 hectares
 - Precinct 2 – 347 hectares
 - Precinct 3 – 90 hectares
 - Precinct 4 – 82 hectares.
- 1.9 The development requirements for each of these four precincts are set out in section 4.
- 1.10 The DSP area is well connected to the rest of Greater Bunbury, including the port, central business district and residential areas, and also other centres in the South West region by South Western Highway, Boyanup-Picton Road and Willinge Drive (see Figure 1).
- 1.11 The northern boundary of the DSP area is the South Western Highway (Route 20) to the north of precincts 1 and 2, which coincides with the southern boundary of the northern precinct of the Picton Industrial Park.

- 1.12 As mentioned above the northern precinct of the Picton (referred to in previous WAPC documents as 'Preston') Industrial Park is subject to a WAPC endorsed DSP, which is available online at www.planning.wa.gov.au/publications/1137.asp. This DSP highlights that a large proportion of the land identified in *Industry 2030* for the northern precinct is unsuitable for industrial development due to environmental constraints. In the areas which have been zoned industrial in the Picton North DSP area a range of industries have already been established, including manufacturing, service commercial, fabrication, fuel storage and distribution and waste recycling industries.
- 1.13 The southern boundary of the DSP area is Boyanup-Picton Road and the northern boundary of the regional open space reserve along the Ferguson River. The area to the south of Boyanup-Picton Road is largely already developed for industrial uses, in between pockets of native remanent vegetation.
- 1.14 The eastern boundary of the DSP area has been shifted slightly eastwards, from that set out in the previous draft DSP, with Martin-Pelusey Road representing the boundary and coinciding with the western boundary of the Waterloo Industrial Park DSP area. The alignment of Martin-Pelusey Road had previously been identified for the proposed Bunbury Outer Ring Road (and is currently identified in the GBRS as such) but the Bunbury Outer Ring Road is now proposed to be built further to the east, running north-east to south-west through the proposed Waterloo Industrial Park. The proposed Waterloo Industrial Park will be subject to its own DSP (Figure 1).

2. Operation

- 2.1 The final DSP will come into effect on the date that it is approved by the WAPC.

3. Staging

- 3.1 Precinct 4 is commonly referred to as the 'Golding Crescent' industrial area after the road running north-south through the area. The precinct is already subdivided, in accordance with the *Dardanup Town Planning Scheme No.7*, and about 53 per cent of the developable area has already been developed and occupied. Precincts 2 and 3 also have some industrial uses established, while Precinct 1 is currently predominantly in rural residential use, together with a caravan park and petrol station.
- 3.2 Precincts 1, 2 and 3 can be developed independently and there is no requirement for specific staging of development between, or within, precincts. Provided that suitable road access and servicing infrastructure is included in any proposed development the staging of the undeveloped parts of the DSP area will be market-led.

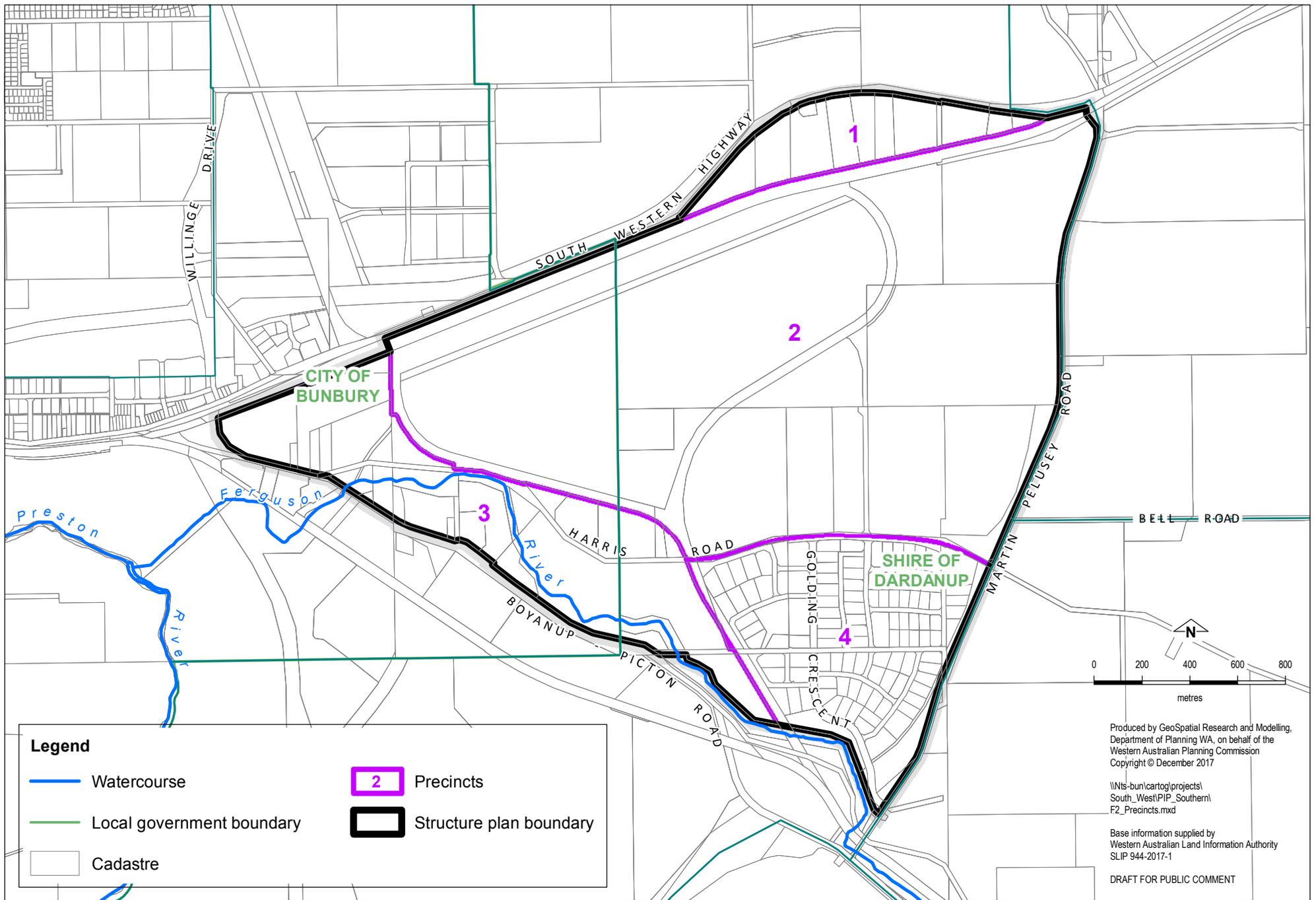


Figure 3: Picton South DSP area precincts

4. Subdivision and development requirements

4.1 Proposed land use and zonings

The DSP map (see Figure 1) highlights the proposed land uses for the DSP area. This DSP sets out the following key conditions to be met for subdivision and development to be permitted within the DSP area:

1. Subdivision and development shall generally be in accordance with the DSP and be approved by the WAPC.
2. Subsequent variations to the DSP may include minor adjustments to road configurations, lot densities and open space boundaries, provided that the variation does not change the intent or configuration of the DSP and is subject to the approval of the WAPC.
3. Prior to subdivision and development in Precincts 1, 2 or 3 applicants are to lodge a local structure plan for adoption by the responsible local authority (or authorities) for these specific areas and endorsement by the WAPC. Where land is currently not zoned in local planning schemes or the GBRS for future industrial use, but is identified as being suitable in the DSP, then amendments to the local town planning scheme and the GBRS will be required.
4. The applicant will be required to prepare the following management plans to support local structure plans, if applicable:
 - Fauna habitat surveys to identify habitat for the Western Ringtail Possum and red-tailed Black Cockatoos and management plans for the Western Ringtail Possum to the satisfaction of the Department of Biodiversity, Conservation and Attractions and Commonwealth Department of the Environment and Energy.
 - Management plans for wetlands and remnant vegetation must be developed concurrently with a bushfire management plan to ensure that the plans align. These plans are to be implemented by the developer at the time of subdivision.
 - Programs for fill and draining of the land at the subdivision stage are to demonstrate that existing vegetation will be protected where possible and not impact upon water quantity and quality of wetlands.
 - A foreshore management plan for Ferguson River shall be developed concurrently with the bushfire management plan to ensure that the plans align. These plans are to be implemented by the developer at the time of subdivision.
 - A bushfire risk assessment/management plan in conjunction with the Department of Fire and Emergency Services and the respective local governments, shall be developed and must take account of long-term revegetation outcomes associated with any wetlands and remnant vegetation management plans and the Ferguson River foreshore management plan.
 - A local water management strategy for local structure plan areas must be prepared to the satisfaction of the Department of Water and Environmental Regulation, in consultation with the local authorities, Department of Biodiversity, Conservation and Attractions and Water Corporation.
5. Industrial lots should be connected to the following urban services:
 - reticulated potable water
 - sewer
 - underground power
 - telecommunications

In the case of sewer connection, consideration may be given to an exemption from the provision of reticulated sewerage, where the proponent can demonstrate on-site domestic waste water can be managed in accordance with the draft *Government Sewerage Policy* (Department of Planning 2016). Despite approximately only half of the DSP area being within a sewage sensitive area, on the basis that the entire site drains to the Leschenault Estuary Management Area and is within an intervention sub catchment of the *Leschenault Estuary Water Quality Improvement Plan* (Department of Water 2012), it is recommended that all on-site domestic wastewater systems to be secondary treatment systems, such as aerobic treatment units.

6. Whilst it is preferred that all lots should be connected to a reticulated gas supply. At the time of subdivision the developer is to undertake investigations into the feasibility of connecting industrial lots to a reticulated gas supply.
7. Prior to subdivision or development developers shall prepare a strategy to the satisfaction of the local authorities, Main Roads WA and the WAPC to ensure that the necessary preparation and funding for the following works are provided for:
 - an intersection at Columbas Drive (Precinct 2) and Harris Road
 - a limited number of intersections with South Western Highway from Precinct 1
 - an internal district distributor road system, including the north/south realigned Martin Pelusey Road and its intersection with Harris Road
 - the improvement of Harris Road and other internal distribution roads as indicated on the DSP map to the status of an integrator road
 - upgrading of the existing at-grade level crossing, including automatic boom gates and lights, which provides access from Columbas Drive to the land within Precinct 2 within the rail loop before occupation of industrial units within this loop
- the provision of an at-grade level crossing, meeting the requirements of the Public Transport Authority, to provide access to the land in Precinct 2 within the rail loop from Harris Road before occupation of industrial units within the loop.
8. Local planning schemes to identify the need or otherwise for development plans to be prepared, to the satisfaction of the local government(s), for areas which may require intersection treatments for accesses onto Harris Road, South Western Highway and Martin Pelusey Road.
9. No industrial lots are permitted to directly back onto areas of remnant vegetation, wetlands or the Ferguson River. Sufficient setback will be required between all new development abutting native remnant vegetation, taking account of any revegetation and/or changes to buffers/foreshores as a result of development of management plans for remnant vegetation, wetlands or the Ferguson River.
10. Proposed land uses are to be generally consistent with *Industry 2030* (WAPC, 2000), which identifies a range of lot sizes and land uses for both light and general industry in this area. Lots for light industry will generally be smaller (up to 1000 square metres) and located in more prominent parts of the DSP area and lots for general industry will normally be catering for larger-scale industries or those where it is beneficial to have a separation from more sensitive land uses to ensure the amenity of the area is not compromised.
11. Local structure plans will need to be supported by the design guidelines and policy measures approved by the Shire of Dardanup and City of Bunbury prior to any subdivision or development in their respective local government areas. The following design objectives will need to be considered in any design guidelines prepared for land within the DSP area:
 - the provision of an at-grade level crossing, meeting the requirements of the Public Transport Authority, to provide access to the land in Precinct 2 within the rail loop from Harris Road before occupation of industrial units within the loop.

- creation of high quality built form solutions, providing functional and attractive industrial streetscapes and efficient use of land
- modern distinctive architectural design, building form, streetscape, signage and landscaping contributing to a sense of place within the area
- efficient use of energy, wastewater re-use, stormwater harvesting and water sensitive design
- high quality unified and functional landscaping that complement the buildings, integrate with the retained natural environment and demonstrate best practice urban water management principles³.

4.2 Requirements for individual precincts

Precinct 1

Precinct 1 is approximately 29 hectares in area. The precinct is zoned for industrial use in the GBRS and the *Shire of Dardanup Local Planning Scheme No. 3*, apart from the road reserve for Lavanter Road in the latter. The precinct is bounded by the Bunbury-Perth railway line to the south and the South Western Highway to the north. Currently the uses in the precinct include a caravan park, including both residential static caravans and touring caravans, a liquor store and service station operating from the same building, and some rural residential properties on large blocks. The existing properties have individual accesses off South Western Highway.

A local structure plan addressing the following issues shall be prepared for the entire precinct prior to any further subdivision:

- the proposed subdivision design will not impact on the future intersections with South Western Highway and the proposed internal road alignment to the satisfaction of Main Roads WA
- all highway access to be via a single internal distributor road with no new lots to have direct highway access onto South Western Highway
- the identification and accommodation of north/south ecological linkages through to South Western Highway
- the protection of significant remnant vegetation in accordance with the Environmental Protection Authority (EPA) s16 (e) advice
- investigation of the potential contamination of the service station site
- to reflect that the area is identified as a mixed-use precinct in *Industry 2030*, with noise limits to 50 decibel(A) and 35 decibel(A) at the boundary, and lot sizes restricted between 4000 square metres and two hectares to generally reflect the proposed use.

Precinct 2

Precinct 2 is approximately 310 hectares in area. In addition to the land currently zoned industrial in the GBRS (149 hectares), 108 hectares is zoned industrial deferred⁴, 31 hectares zoned rural, 14 hectares reserved for railway uses, three hectares for Primary Regional Roads and five hectares reserved for Public Utilities. The area zoned industrial deferred in the GBRS will have its deferred status lifted once the various planning, servicing and environmental requirements are addressed.

³ See Better Urban Water Management (WAPC, October 2008).

⁴ 'Industrial deferred' is land suitable for future industrial development but where there are various planning, servicing and environmental requirements which need to be addressed before industrial development can take place.

The precinct is bounded to the north by the Bunbury-Perth railway line, to the west by the western rail loop, which provides access for the Picton-Northcliffe rail line in both directions onto the Bunbury-Perth line, to the east by the re-aligned Martin-Pelusey Road providing access to the development areas and to the south by Harris Road. Some industrial uses have already been developed in a non-coordinated manner within this precinct.

The area within the rail loop may be suited to rail-related activities and uses, including potentially an inter-modal transfer facility. Prospective proponents should consider discussions with the Public Transport Authority, Arc Infrastructure and the Freight and Logistics Council of Western Australia.

An environmental assessment was carried out by GHD of part of Precinct 2 in 2008 and issues raised by the environmental assessment were considered in a draft local structure plan for Lot 105 Columbas Drive.

Several threatened and priority fauna species and Priority 3 threatened ecological communities (TECs) have been identified, specifically in lot 200.

The then Planning Minister approved a local planning scheme amendment with the rezoning of Lot 105 Columbas Drive as a 'development' zone in 2013.

A local structure plan (or plans) shall be prepared for all or part of the precinct prior to any further subdivision to specifically ensure that the following issues are addressed:

- the integration of future development on land located within the rail loop with the remainder of the precinct, with highway access via at-grade crossings, subject to the agreement of the Public Transport Authority and the WAPC
- the protection of significant remnant vegetation and the management of the Resource Enhancement wetland on Lot 200 in accordance with the EPA s16 (e) advice

- buffers of a requisite distance between industrial lots and any remnant vegetation, taking into account any revegetation and/or changes to buffers/foreshores as a result of development of management plans for wetlands and remnant vegetation
- intersection modifications for the three southern access roads to Harris Road
- lot sizes to be generally in accordance with those prescribed in *Industry 2030*, with a minimum of 3000 square metres and the remainder a variety of lot sizes up to 100 hectares. Larger lots will be considered where it can be demonstrated that the proposed land use will comply with the cumulative impact assessment for the noise, odour and risk modelling for the Preston Industrial Park
- access onto both Harris Road and the re-aligned Martin-Pelusey Road to be controlled through the use of an internal road system with a limited number of access points. General condition 7 of Section 4.1 will apply if any additional highway access points are identified.

Precinct 3

Precinct 3 is approximately 50 hectares in area. Sixteen hectares currently has an industrial zoning in the GBRS (also in the City of Bunbury and Shire of Dardanup local planning schemes), 19 hectares is zoned industrial deferred, 13 hectares is reserved as Regional Open Space and three hectares Primary Regional Roads. The industrial deferred zoning will have the deferred status lifted once the various planning, servicing and environmental requirements are addressed.

The precinct's northern boundary is the Northcliffe-Picton railway line and western section of the rail loop and South Western Highway. The precinct's southern boundary is Boyanup-Picton Road.

The Ferguson River flows east to west through Precinct 3 and the associated GBRS regional open space reserve on the banks of the river. A reserve for a new primary road for vehicles accessing the port is identified in the western side of Precinct 3. Whether this road reserve is required will be considered through the Main Roads' project design work associated with the Bunbury Outer Ring Road.

A local structure plan (or plans) shall be prepared for all, or parts, of Precinct 3 prior to any further subdivision to ensure that the following issues are addressed prior to development taking place:

- future planning for development north of the Ferguson River and south of Harris Road is integrated
- future planning for development south of the Ferguson River is integrated
- access onto either Harris Road or Boyanup-Picton Road is to be restricted to a minimum number of access points
- the protection of significant remnant vegetation in accordance with the EPA s16 (e) advice
- setback from remnant vegetation and Regional Open Space, taking account of any revegetation and/or changes to buffers/foreshores as a result of development of management plans for remnant vegetation, wetlands or the Ferguson River, to ensure the appropriate conservation of these areas
- any potential flood issues associated with the Ferguson River
- protection and continued access to the Department of Water and Environmental Regulation's river gauging station (Ref: 611007 - Ferguson River).

Precinct 4

Precinct 4 is 68 hectares in area. Its northern boundary is Harris Road, western boundary the Picton-Northcliffe railway line, eastern boundary Martin-Pelusey Road and southern boundary the regional open space associated with the Ferguson River.

The whole of the precinct is currently zoned industrial in the GBRS. The Dardanup town planning scheme zones the precinct as:

- general industry (eight hectares in the north west of the precinct)
- light industry (60 hectares)
- public space (five hectares).

This precinct has already been subdivided for industrial development, with internal roads and servicing provided, apart from sewer. The precinct is almost 50 per cent developed and consequently no local structure plan is required.

Part Two: Explanatory section

1. Planning background

1.1 Introduction and purpose

This Picton Industrial Park Southern Precinct (Picton South) DSP is a strategic high-level plan which has been produced by the Department of Planning, Lands and Heritage, on behalf of the WAPC. It is designed to:

- provide an overarching guide and set of key land-use planning principles and development requirements for local structure plans covering the DSP area, see Figure 1, and
- facilitate efficient and effective future development and amendments to the GBRs and the relevant local planning schemes (City of Bunbury and Shire of Dardanup).

District structure plans, by their nature, are not intended to address detailed planning and design matters but to provide the context by which these matters can be appropriately addressed as part of further detailed planning and design.

The DSP sets out the following key objectives for the development of Picton South, to ensure:

- the area to be developed represents a significant part of the range of Greater Bunbury's industrial areas, offering diverse employment and economic activity opportunities
- that an adequate supply of a variety of suitably serviced industrial zoned lots continue to be available over the next 10 to 20 years
- a high quality of amenity and built forms are delivered from future development within the DSP area
- the road network within the industrial precincts effectively integrates with the existing and proposed future road network and is designed to accommodate traffic associated with industrial development, including heavy haulage vehicles

- land is adequately serviced, including provision of reticulated water, sewerage, drainage, digital telecommunications, waste management and power
- high quality sustainable development and water quality management principles are adhered to
- environmental, pollution control and water cycle management measures are implemented to minimise adverse impacts on the key attributes of the local environment
- the protection and management of areas of environmental significance, particularly the Ferguson River, wetlands and areas of native remnant vegetation (including the Resource Enhancement wetland on Lot 200 Harris Road, Plan 34987).

1.2 Land description

1.2.1 Location

The area Picton South is situated in the South West of Western Australia, a non-metropolitan region of considerable significance to the wider national and State interests. At the 2016 Census the region's population was 176,330 people, representing a 10 per cent increase from 2006. This population is projected to potentially rise to 210,000 people by 2026.

The South West region supports a thriving and diverse export-orientated regional economy, worth in excess of A\$15 billion in 2011/12, and has benefitted from significant economic growth in recent years. Mineral exports include alumina, coal, titanium dioxide, lithium, tantalum and silicon. Other significant local industries include agricultural, forestry, fishing, tourism, retail and construction. The region has major investment linkages with China, India, the Middle East and the United States. Bunbury Port is the local port for the region's bulk product exports and is critical to the region's economy.

Bunbury is the regional centre for the South West region. At the 2011 Census the population of the City of Bunbury was approximately 32,600 people, and the population of the wider Greater Bunbury area (including the neighbouring shires of Harvey, Dardanup and Capel) was about 84,000 people. The city provides the higher-order services and facilities for the region, including regional port, regional health campus, regional sports facilities, tertiary and technical education, private and public secondary schools and regional state administrative offices.

The City of Bunbury area covers a significant portion of residential, large-scale commercial and other urban development both within the Greater Bunbury sub-region and wider South West region. It will remain the focus for employment generation in the South West. This will be supported by Bunbury being a centre for maritime trade with a proposed expansion to the port with well-planned freight routes limiting road congestion. The expansion in maritime trade will drive new investment in import and export-related commercial activity and support new freight logistics for distribution of cargoes. In time the growth and expansion will be supported by proposed future high-speed rail links to Perth, Mandurah and Busselton.

This focus on generating employment will need to be supported by major industrial and commercial development on suitable and accessible land. Picton South, the area of this structure plan, will make a considerable contribution to meeting that need.

The area covered by this DSP is located between seven and 10 kilometres south-east of the Bunbury central business district, and immediately to the east of Picton (see location plan – Figure A). It is situated approximately 160 kilometres (some two hours' drive) south of Perth central business district.

Picton South is situated immediately south of the Picton Industrial Park Northern Precinct, separated by South Western Highway. Both the northern and southern precincts of the Picton Industrial Park are already well linked to the rest of Greater Bunbury, including the port, central business district and residential areas and other centres in the South West. This access will

improve further upon construction of the planned Bunbury Outer Ring Road and improvements planned for Harris Road, South Western Highway, Martin-Pelusey Road and Boyanup-Picton Road.

The DSP area is split between the jurisdiction of the City of Bunbury, approximately 25.5 per cent (140 hectares) of the western part of the DSP area, and the remaining 74.5 per cent (408 hectares) in the Shire of Dardanup.

1.2.2 DSP area and land use

The DSP area is approximately 548 hectares of relatively flat and low-lying land, with the bulk of the area lying between the 10 and 20 metre Australian height datum contour lines, rising gently from the north-west to the south-east. Several watercourses, including the Ferguson River and drainage ditches, traverse across the DSP area. It is predominantly in low-key rural use, but a considerable portion of land has already been given over to industrial uses. In Precinct 1 there is a caravan park, rural residential properties and a petrol station and liquor store fronting onto South Western Highway.

The northern boundary of the DSP area is the South Western Highway (Route 20) to the north of Precinct 1, coinciding with the southern boundary of the northern precinct of the Picton Industrial Park and the Picton rail goods area lying parallel to the Bunbury-Perth railway line.

The southern boundary of the DSP area is the Boyanup-Picton Road, which joins with South Western Highway immediately to the east of the district structure plan area. The area to the south of the Boyanup-Picton Road is largely already developed for industrial uses, although there are pockets of native remnant vegetation that are protected in the GBRS and the *Greater Bunbury Strategy 2013*.

The eastern boundary of the DSP area is the proposed route of the re-aligned Martin-Pelusey Road which is proposed to provide vehicular access to the Greater Bunbury sub-region.

1.2.3 Legal description and ownership

The four precincts are divided into the following number of individual lots:

Precinct 1: 11 lots (29 hectares)

Precinct 2: 14 lots (347 hectares)

Precinct 3: 31 lots (90 hectares)

Precinct 4: 111 lots (82 hectares).

The individual land holdings are predominantly privately owned, the exceptions being various parcels of land to the west of Martin-Pelusey Road within the existing alignment of the Bunbury Outer Ring Road which are owned by Main Roads WA, and the three areas reserved for public open space owned by the State Government.

1.3 Planning framework and context

Land-use planning in Western Australia is administered under the *Planning and Development Act 2005*, which provides for the establishment of a regional planning scheme to guide land-use planning and development. In this case it is the GBRS that is the relevant planning scheme together with the Shire of Dardanup's *Town Planning Scheme No.3* and the City of Bunbury's *Town Planning Scheme No.7*.

The *Planning and Development (Local Planning Schemes) Regulations 2015* set out the proposed regulations for the preparation, advertising and approval of structure plans and the *Structure Plan Framework* (WAPC, 2015) set out the scope, format and content of structure plans. This structure plan has been based on those guidelines.

1.3.1 Existing land-use zoning and reserves

Within the DSP area

Industrial: about 436 hectares of the overall 548 hectares is currently zoned for industrial use (or industrial deferred) in the GBRS and relevant local planning schemes.

Public Utilities: about five hectares is currently reserved for Public Utilities in the GBRS and/or local planning schemes.

Regional Open Space: Regional Open Space is reserved in the GBRS and local planning schemes, and follows the foreshore of the Ferguson River.

Railway reserves: a rail loop connecting the currently unused Picton-Manjimup railway line with the Bunbury-Perth railway line traverses through in a south-east to north-westerly direction and is zoned as railway reserve in the GBRS and local planning scheme. The Bunbury-Perth railway line also goes through the DSP area to the north, splitting Precinct 1 with Precinct 2. There is an area reserved for railway uses (66 hectares) which lies outside the delineated precincts. The development requirements for each of these four precincts are set out in section 4.

Rural: within Precinct 2 there are two lots which retain a rural zoning, lots 200 (22 hectares) and 104 (nine hectares).

Zonings and reserves adjacent to the DSP area

The land to the east of the DSP area is currently zoned rural in the GBRS and local planning scheme. However, it is identified in the Greater Bunbury Strategy 2013 as a major long-term industrial expansion area, referred to as the Waterloo Industrial Park, and will be the subject of a separate draft DSP.

The line of the proposed northern extension of the Bunbury Outer Ring Road runs north-south through the Waterloo industrial expansion area. It is envisaged that development in this area will follow on after development of the Picton Industrial Park, although some elements of Waterloo may come forward before development is fully completed at Picton.

There are Primary Regional Road reserves on each side of the DSP area:

- Boyanup-Picton Road to the south-west
- the alignment of the proposed Port Access Road to the west
- South Western Highway to the north
- along the existing Martin-Pelusey Road, originally reserved for the Bunbury Outer Ring Road, the alignment of which Main Roads WA has indicated will be shifted east (north of Harris Road).

1.3.2 Sub-regional structure plan

Greater Bunbury Structure Plan 2013

The *Greater Bunbury Structure Plan 2013* forms part of the *Greater Bunbury Strategy*. It identifies land ahead of the rezoning process in the GBRS and local planning schemes, so that future development can occur in a logical manner in response to future growth trends. The sub-regional structure plan map is shown in Figure 4.

1.3.3 Planning strategies

Greater Bunbury Strategy 2013

The *Greater Bunbury Strategy 2013*, prepared by the Department of Planning and endorsed by the WAPC, guides urban, industrial and associated infrastructure delivery in Greater Bunbury in the short, medium and long-term. One of the key objectives of the strategy was to provide appropriate locations for the growth of employment areas. One of the five key challenges identified by the strategy was to develop a 'prosperous' sub-region, including providing appropriate locations for the growth of employment lands (including retail, commercial, light industry and service industry), minimising conflict between competing land uses in the short and long-term.

Greater Bunbury Strategy 2013

FINAL REPORT

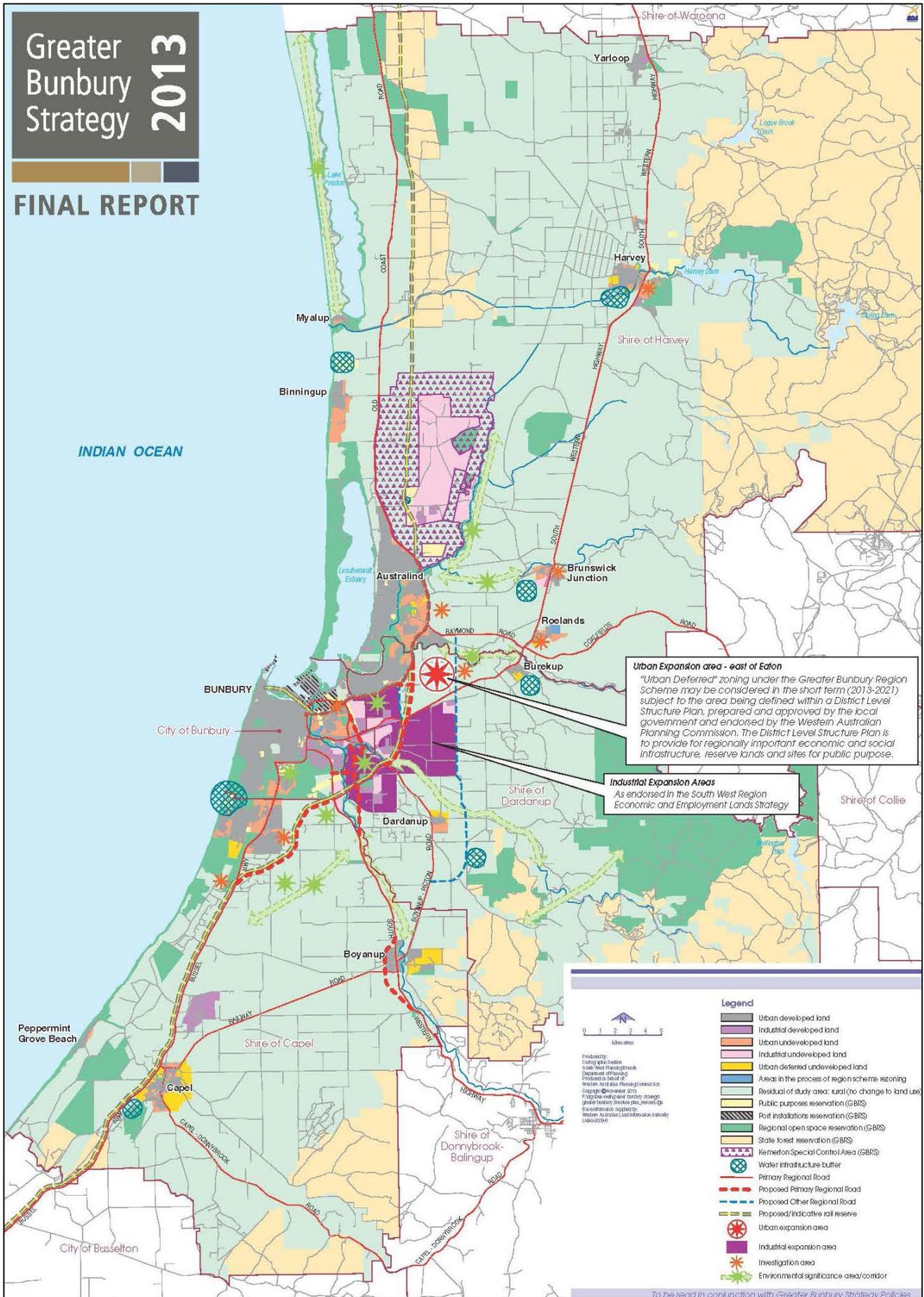


Figure 4: Greater Bunbury Sub-Regional Structure Plan 2013

Shire of Dardanup Local Planning Strategy

The *Shire of Dardanup Local Planning Strategy* (April 2015) aims to provide a framework for future development and assist employment and economic growth by providing land suitable for retail, commercial, industrial and tourism. The strategy outlines that industrial land within Dardanup West/Picton East (which includes this DSP area) zoned industrial within the GBRS be identified in the updated Shire's Local Planning Scheme to be consistent with the GBRS.

The strategy states that: "*LPS9 will need to include appropriate provisions requiring structure planning and environmental consideration as many land parcels adjoin environmentally significant areas identified by the EPA in its Section 16(e) advice (Bulletin 1282 March 2008)*", and that LPS9 identifies the area as a 'Special Control Area' for structure planning, with appropriate scheme provisions.

City of Bunbury Local Planning Strategy and Local Planning Scheme

The City of Bunbury published for public consultation a draft *Local Planning Strategy* and draft *Local Planning Scheme No.8* (LPS 8) in 2016. The finalised version of both documents have now been endorsed by the WAPC.

1.3.4 Planning policies

State Planning Strategy 2050

The *State Planning Strategy 2050* (WAPC, 2014) aims to guide sustainable development in the State for the next four decades. It is a guide from which public and local authorities can express or frame their legislative responsibilities in land-use planning, land development, transport planning and related matters. One of its fundamental goals is to facilitate co-ordinated and sustainable economic development. To achieve this goal a suitable and affordable supply of land needs to be made available for development to meet the long-term needs of business and people across the State.

Relevant State planning policies

SPP 1 State Planning Framework Policy Variation 2 (WAPC, 2006)

This policy brings together existing State and regional policies, strategies and guidelines and provides a context for decision making on land-use and development in Western Australia. It informs the WAPC, local government and others involved in the planning process on those aspects of State-level planning policy which are to be taken into account, and given effect to, in order to ensure integrated decision making across all spheres of planning.

SPP 2 Environment and Natural Resources Policy (WAPC, 2003)

The objectives of this overarching policy are to:

- integrate environment and natural-resource management with broader land-use planning and decision making
- protect, conserve and enhance the natural environment
- promote and assist in the wise and sustainable use and management of natural resources.

SPP2.9 Water Resources (WAPC, 2006)

The objectives of this policy are to:

- protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values
- assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources
- promote and assist in the management and sustainable use of water resources.

SPP 3.6 Development Contributions for Infrastructure (WAPC, 2009) and draft SPP 3.6 (September 2016)

In Western Australia developer contributions for the provision of infrastructure are a long-accepted essential part of the planning system. Developers are responsible for the provision of standard infrastructure which are necessary for the development, including water supply, sewerage and drainage, roads and power. These contributions are by way of land, works or payments towards the provision of infrastructure. Requirements for developer contributions are imposed by way of conditions on subdivision or development, or in areas of fragmented ownership by development schemes or development contribution arrangements under local government planning schemes.

This policy sets out the principles and considerations applying to development contributions for the provision of infrastructure required to accommodate new development. The objectives of the policy are to:

- promote the efficient and effective provision of public infrastructure and facilities to meet the demands arising from new growth and development
- ensure that development contributions are necessary and relevant to the proposed development and are charged equitably between those benefiting from the infrastructure and facilities to be provided
- ensure consistency and transparency in the system for apportioning, collecting and spending development contributions
- ensure the social well-being of communities arising from, or affected by, development.

Contributions are for the initial capital requirements only and not for ongoing maintenance and/or operating costs of the infrastructure.

SPP 4.1 State Industrial Buffer Policy (WAPC, 1997)

The purpose of this policy is to provide a consistent approach to the protection and security of industrial zones, transport terminals, ports, other utilities and special use zones. *State Planning Policy 4.1* also considers the safety and amenity of surrounding land uses, while having regard to the rights of landowners who may be affected by residual emissions and risk.

Section 1.1 of the policy states that in the case of light/service industry parks the impacts can usually be retained on-site, which is a normal requirement for this type of industry, where building setbacks combined with suitable landscaping in effect form the buffer area. Other types of industry such as hazardous, noxious, resource processing, general industry and infrastructure (including power generation facilities, effluent treatment plants and ports) often require buffer areas which may extend off-site on to surrounding properties.

Picton South provides for light/service and general industrial land uses. All proposed industrial uses within the DSP area will need to be assessed for compliance with *Environmental Protection Guidance Statement No. 3: Separation Distance between Industrial and Sensitive Land Uses* at the development application stage, as detailed information becomes available.

A draft SPP 4.1 Industrial Interface was published in November 2017 for public consultation. The purpose of the policy is to protect industry and infrastructure facilities from the encroachment of incompatible land uses and to prevent land use conflict between industry/infrastructure facilities and sensitive land uses. It is anticipated that the draft *SPP 4.1 2017* will replace *SPP 4.1 1997 Industrial Buffer Policy* when adopted by the WAPC.

Development Control Policy No. 4.1: Industrial Subdivision (WAPC, 1988)

Development Control Policy No. 4.1 (DC 4.1) provides guidance for determining applications for industrial subdivisions throughout the State. The policy covers such matters as the design and shape of industrial lots, road layout, servicing, and open space requirements.

The relevant provisions of this policy were considered during preparation of the DSP and all future local structure plans and subdivisions will be assessed to ensure the provisions of the policy are addressed.

Draft Government Sewerage Policy (DPLH, 2016)

This policy establishes the Western Australian Government's position on the provision of reticulated sewerage in the State for the rezoning, structure planning, subdivision and development of land.

Whilst there have been improvements in technology associated with on-site sewage treatment systems, reticulated sewerage remains the most reliable, efficient and environmentally acceptable means of sewage disposal. In recognition of the risks associated with their installation, operation and maintenance, on-site sewage disposal systems servicing individual lots are not considered as an appropriate alternative to reticulated sewerage for most subdivision and development.

1.3.5 Statutory planning context

Greater Bunbury Region Scheme

The *Greater Bunbury Region Scheme* (GBRS) came into effect on 29 November 2007 and applies to the area of the City of Bunbury and shires of Capel, Dardanup and Harvey. It sets out the proposed land-use zoning within the region and provides the legal basis for planning in the Greater Bunbury sub-region.

The current GBRS zones and reserves for the DSP area are Industrial, Industrial Deferred, Regional Open Space, Primary Regional Roads, Railway, Public Purposes – Public Utilities, and Rural, see Figure 5.

Shire of Dardanup Local Planning Scheme No.3

The local planning scheme for the Shire of Dardanup zones land in the Shire for the purposes set out in the scheme and consolidates the existing urban areas. The Shire is currently updating the scheme and this updated scheme will need to be in conformity with the GBRS. Following approval by the WAPC of this DSP the scheme will need to be amended to take into account the provisions of this DSP.

City of Bunbury Local Planning Scheme No.8

The *City of Bunbury Local Planning Scheme No.8* divides the local government district into zones to identify areas for particular uses, and land reserved for public purposes. The scheme controls the types of uses and development allowed in different zones. It has been produced in conjunction with the updated local planning strategy.

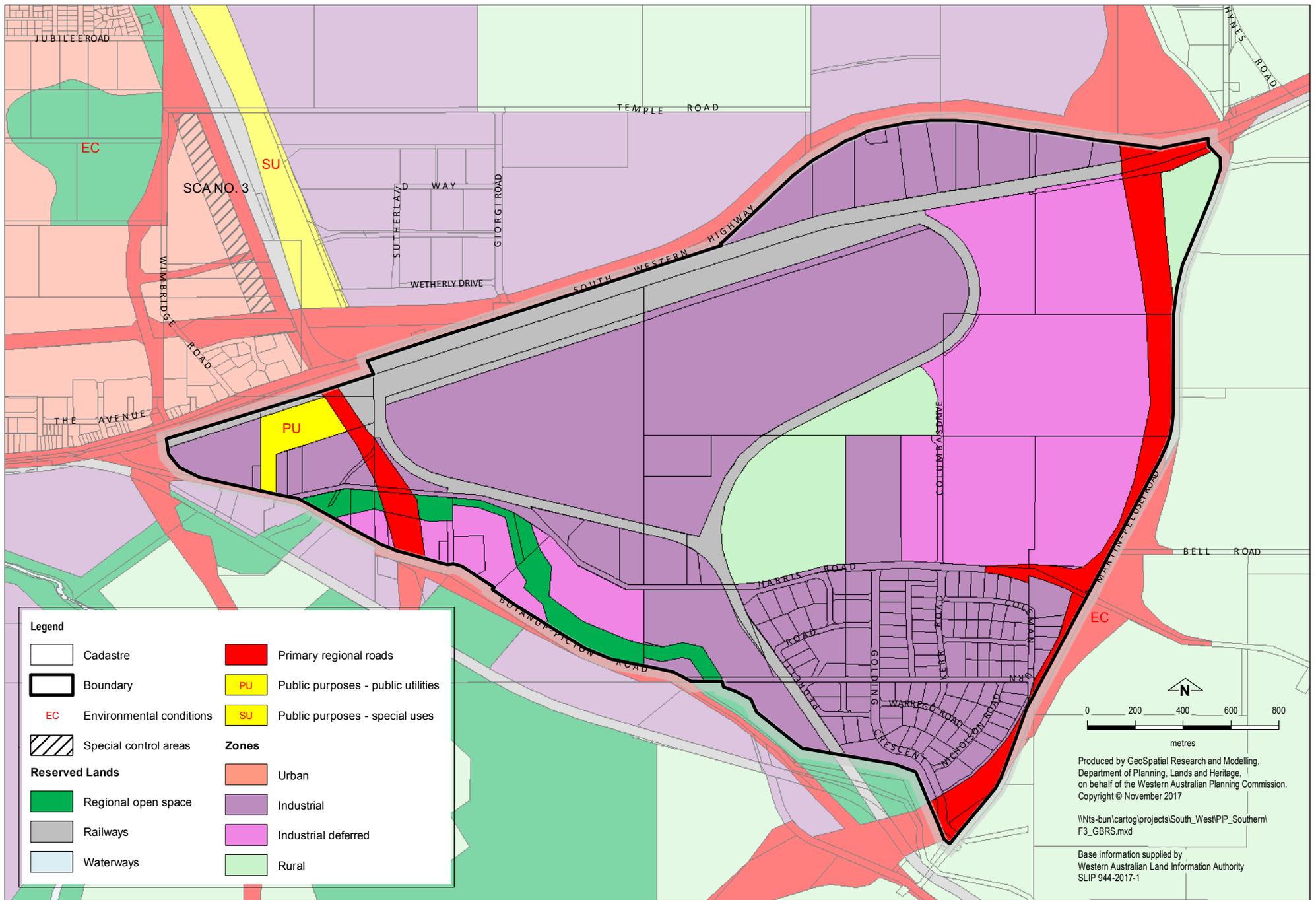


Figure 5: Greater Bunbury Region Scheme

2. Site conditions and constraints

2.1 Biodiversity and natural area assets

The wider Preston Industrial Park area includes high-value biodiversity with a wide variety of native flora. The remnant vegetation present in the Picton South DSP area is categorised as being predominantly Southern River complex with some elements of Guildford complex, including lot 104 and the eastern part of lot 200 identified as rural by the DSP. However, the majority of the land within the DSP area has undergone clearing through historic timber cutting and grazing. In addition, non-native weed movement has been facilitated along the Ferguson River.

In 2008 the EPA published advice to the (then) Minister for the Environment on environmental issues associated with the wider Preston Industrial Park area, including the Picton South DSP area⁵. The wider area is situated within a 'constrained area'. The EPA's objective for such constrained areas is to retain at least 10 per cent of the pre-clearing extent of ecological communities where greater than 10 per cent of the ecological community remains on the Swan Coastal Plan, or retain all remaining areas where 10 per cent or less of an ecological community remains.

Thirty one hectares of remnant vegetation in Precinct 2 of the DSP area is zoned rural in the GBRS. This area is considered a representation area of the Guildford vegetation complex in 'good' to 'very good' condition and is the location for:

- a Resource Enhancement Wetland located on Lot 200 (Plan 34987), for which a wetland management plan is recommended to be developed in consultation with the Department of Biodiversity, Conservation and Attractions

- three priority and five poorly reserved flora
- contains several recordings of threatened and priority fauna
- two threatened bird species – the Baudin's cockatoo and red-tailed black cockatoo
- one threatened mammal species – the western ringtail possum
- at least three bird species listed as conservation significant on the Swan Coastal Plain.

Thirteen hectares is reserved Regional Open Space in the GBRS along the Ferguson River. This area is considered by the EPA to be a regionally significant natural area of high value, with predominantly 'good' to 'degraded' condition of Southern River and Guildford vegetation complexes.

⁵ *Advice on Areas of Conservation Significance in the Preston Industrial Park*, EPA Bulletin 1282, March 2008.

2.2 Landform and soils

The DSP area is part of the wider Swan Coastal Plain. It is predominantly flat with topographic elevation ranging from just over 20 metres above Australian height datum on the eastern side of the site to just under 10 metres Australian height datum along the Ferguson River and the Water Corporation rural drain that runs into the river from the north. The topography generally slopes downwards from the east to the west.

The DSP area is predominantly underlain by the Pinjarra Plain in the western part (see Figure 8), with the characteristic poorly drained soils with a shallow perched water table. In the eastern and central parts of the DSP area there is a mixture of Pinjarra Plain and Bassendean sands, where the Bassendean sands have a greater deep sandy soil characteristic.

Acid sulphate soils occur throughout the Swan Coastal Plain, including in the DSP area. The acid sulphate soils risk mapping (see Figure 7) indicates that the 'high to moderate' risk area within three metres of the surface is restricted to the Ferguson River foreshore. The remainder of the DSP area is designated as having a 'moderate to low' acid sulphate soils risk.

Future detailed studies may be required to determine the status of the soils in some areas, particularly in any peaty wetland systems or where coffee rock/iron hardpan is found.

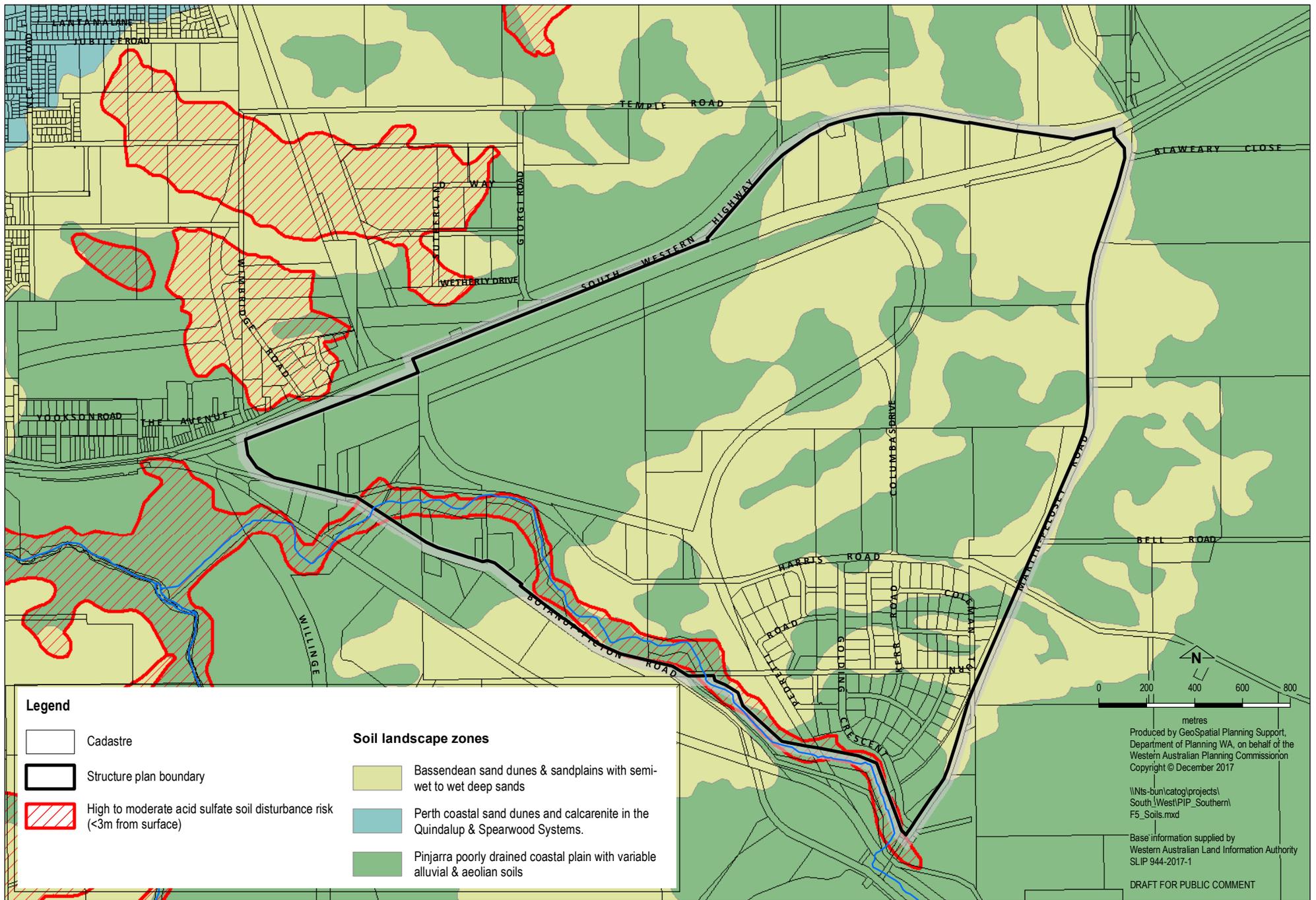


Figure 7: Soils and landform

2.3 Groundwater and surface water

The DSP area is predominately classified as a palusplain, with much of the land mapped as multiple use wetlands in the Geomorphic Wetlands, Swan Coastal Plain dataset. As such perched water tables result in seasonal water logging and inundation across much of the site.

The entire DSP area is located in the Bunbury Groundwater Area, proclaimed under the *Rights in Water and Irrigation Act 1914*, and is managed in accordance with the *South West groundwater areas allocation plan* (DoW 2009):

- A small portion of the western end of the site is within the Bunbury East groundwater sub-area for which there is no water available in the underlying aquifers.
- The eastern portion of the site is within the Dardanup groundwater sub-area for which there is only water available in the Perth - Superficial Swan aquifer, this resource may be problematic to access due to the local geology.

The majority of the DSP area is service by Water Corporation's East Picton Main Drain, which drains east west and discharges to the Ferguson River in the north-west corner of the DSP area. The Ferguson River runs within the southern portion of the DSP area, flowing into the Preston River about one kilometre downstream of the DSP area. The Ferguson River is proclaimed under the *Rights in Water and Irrigation Act 1914*. Any works that interferes with the bed and banks of the watercourse may require a permit.

A small portion of the DSP area is the north and west drains eastwards and into Water Corporation's Vindictive Drain which north-south immediately to the east of the DSP area carrying surface water north into Millars Creek, and then the Collie River.

The southern portion of the DSP area is within the Leschenault Inlet Management Area, proclaimed under the *Waterways Conservation Act 1976*. In addition the DSP area that drains to the Ferguson River in within an Intervention sub-catchment, as defined in the *Leschenault Estuary Water Quality Improvement Plan* (DoW 2012). The following management options are recommended for this sub-catchment: riparian zone restoration and creation of buffers, removal of all septics and to avoid any new septics being installed, and fertiliser management".

2.4 Bushfire hazard

Significant portions of the draft DSP area are designated as bushfire prone on the current map of bushfire prone areas and therefore trigger the provisions of SPP 3.7 *Planning in Bushfire Prone Areas*. A Bushfire Hazard Level (BHL) assessment identifying opportunities and constraints for land use intensification and ability to achieve compliance with the bushfire protection criteria has been carried out by Strategen Environmental Consultants as part of this DSP (May 2017).

The Department of Fire and Emergency Services in their submission to the draft DSP, confirmed that: "at the strategic level bushfire management is likely to be only one consideration of the decision maker in determining the suitability of the land for the proposed intensification of development or land use" and that the "planning process focuses on the location and siting of vulnerable and high risk land uses rather than the application of bushfire construction requirements."

The BHL assessment for Picton South identified the following vegetation classes within the Picton South DSP area (see Figure 7):

- Class A forest south of South Western Highway, Harris Road, adjacent to the eastern side of the rail loop and abutting the Picton Rail Yard to the north.

- Class B woodland within existing public open space, to the south, east to the northeast and along South Western Highway
- Class G grassland throughout areas of unmanaged grass
- non-vegetated areas (for example roads and buildings) and/or low threat managed land excluded from classification under Clause 2.2.3.2 (e) and (f).

The BHL assessment emphasises that the vegetation extent demonstrate current site conditions and does not take into account vegetation clearance proposed as part of future staged development. Therefore, the extent of Clause 2.2.3.2 exclusions within the DSP areas will increase as development progresses throughout the site.

Existing BHLs were assessed for the DSP area in accordance with methodology within the SPP3.7 Guidelines (see Figure 8):

- all Class A forest is identified as extreme hazard.
- Class B woodland adjoining areas of Class A forest or Class D scrub or consisting of trees with a closed canopy is identified as an extreme hazard
- Class B woodland consisting of an open woodland with a grassy understorey (no mid-storey) is identified as a moderate hazard
- Class D scrub is identified as an extreme hazard
- areas identified as a combination of Class G grassland vegetation and areas excluded under Clause 2.2.3.2 f are identified as a moderate hazard based on a precautionary approach
- all areas within 100 metres of extreme or moderate areas are identified as moderate.

The majority of Picton South DSP is located within a moderate bushfire hazard area, with some areas of extreme hazard. Given that proposed industrial development will result in high density development footprints requiring clearing of a significant proportion of the on-site vegetation extent, the post-development vegetation extent will result in lower hazard levels.

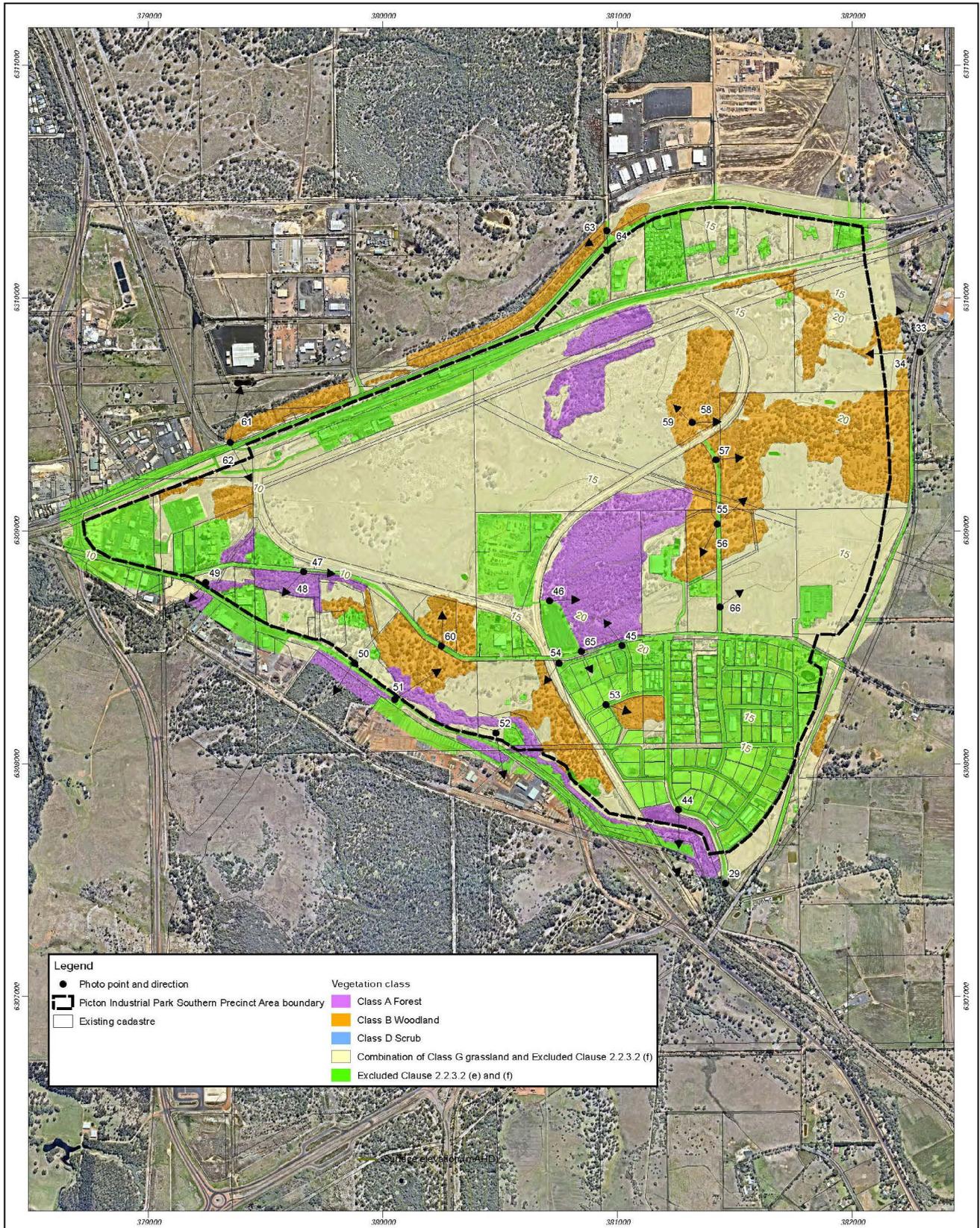
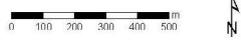


Figure 5: Picton South: Vegetation class and effective slope

Scale 1:15,000 at A3



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas

Date: 2/05/2017

Author: jcnute

Source: Aerial image: Nearnap, flown 03/2017. Existing cadastral and surface elevation: SLIP, Landgate 2017. Layout: Client 04/2017.



Info@strategen.com.au
 www.strategen.com.au

Figure 8: Existing vegetation classes

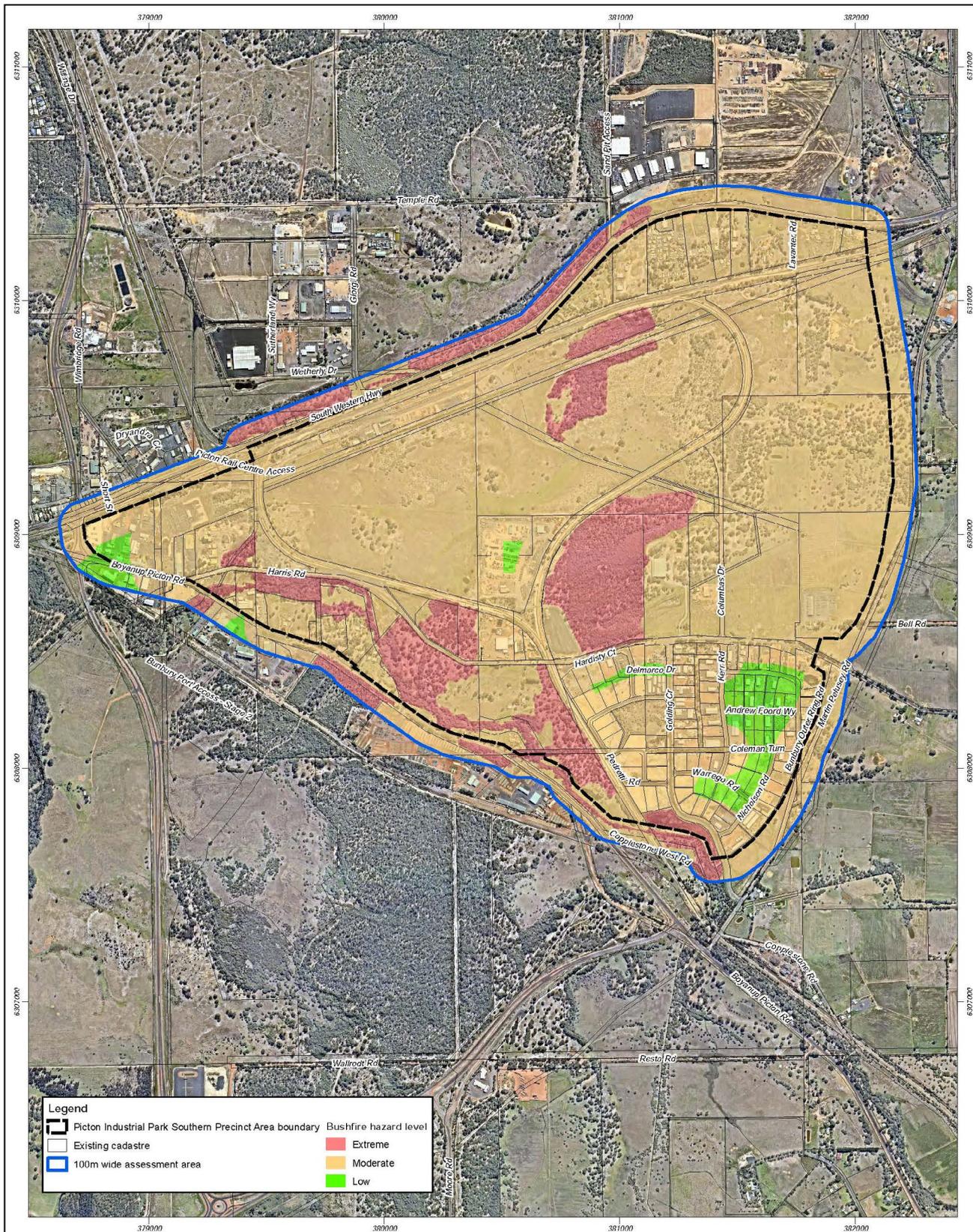


Figure 8: Picton South: Pre-development bushfire hazard level assessment

Scale 1:15,000 at A3



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas

Date: 3/05/2017

Author: jcnute

Source: Aerial image: Neamap, flown 03/2017. Existing cadastre and surface elevation: SLIP, Landgate 2017. Layout: Client 04/2017.



info@strategen.com.au
 www.strategen.com.au

Figure 9: Pre-development bushfire hazard level assessment

The potential post-development classified vegetation extent is depicted in Figure 9. Portions of vegetation posing an extreme hazard are likely to be retained within areas of public open space, the Regional Open Space reserve and portion of the existing rail reserve.

Figure 10 identifies a number of industrial development areas that have a direct interface with areas of potential post-development classified vegetation. This includes the Ferguson River Regional Open Space to the south and the central area (Lots 104 and 200) being proposed as a Regional Open Space reserve under the DSP.

The existing vegetation extent within Lots 200 and 104 is likely to remain, given it has been identified by the EPA (2008) as warranting reservation, and is proposed as Regional Open Space reserve by the DSP. The proposed industrial development areas are large enough to ensure that lots adjacent to this area can be designed to accommodate building setbacks to achieve the minimum setbacks set out in Table 1 of the BHL Assessment (Strategen 2017). If this is not achievable, perimeter public roads are recommended at the development-vegetation interface to ensure that minimum separation distances for a Bushfire Attack Level (BAL)-29 can be achieved.

The Ferguson River Regional Open Space Reserve is unlikely to include managed active recreation areas, given that surrounding land use will be industrial and the limited width of the foreshore. The proposed industrial development areas are large enough to ensure that lots adjacent to this area can be designed to accommodate building setbacks to achieve minimum setbacks identified in Table 1 of the BHL Assessment (Strategen 2017).

If this is not achievable, perimeter public roads are recommended at the development-vegetation interface to ensure that minimum separation distances for a BAL-29 can be achieved. If a public road near the river is not feasible, an emergency access way could be considered as an alternative to providing a low fuel separation and access for site occupants and fire fighting appliances.

The presence or location of any potential high risk land uses is not known at this strategic planning stage, however, it is recommended that high risk land uses be avoided within future lots that have a direct interface with areas of post-development classified vegetation.

The EPA's 2008 advice also recommended some areas of existing vegetation, north of the proposed Regional Open Space Reserve on Lots 200 and 104 and west of the rail reserve, be retained as part of future planning proposals. Under the DSP these areas are currently identified for industrial development and therefore assumed to be cleared. Should these areas of vegetation be identified at later planning stages for retention, minimum separation distances from habitable buildings will need to be accommodated either via lots that are large enough to accommodate building setbacks or perimeter public roads.

As part of the local structure plans, bushfire management plans will need to be carried out taking into account the most up-to-date Department of Fire and Emergency Services map of bushfire prone areas, online at www.maps.slip.wa.gov.au/landgate/bushfireprone/

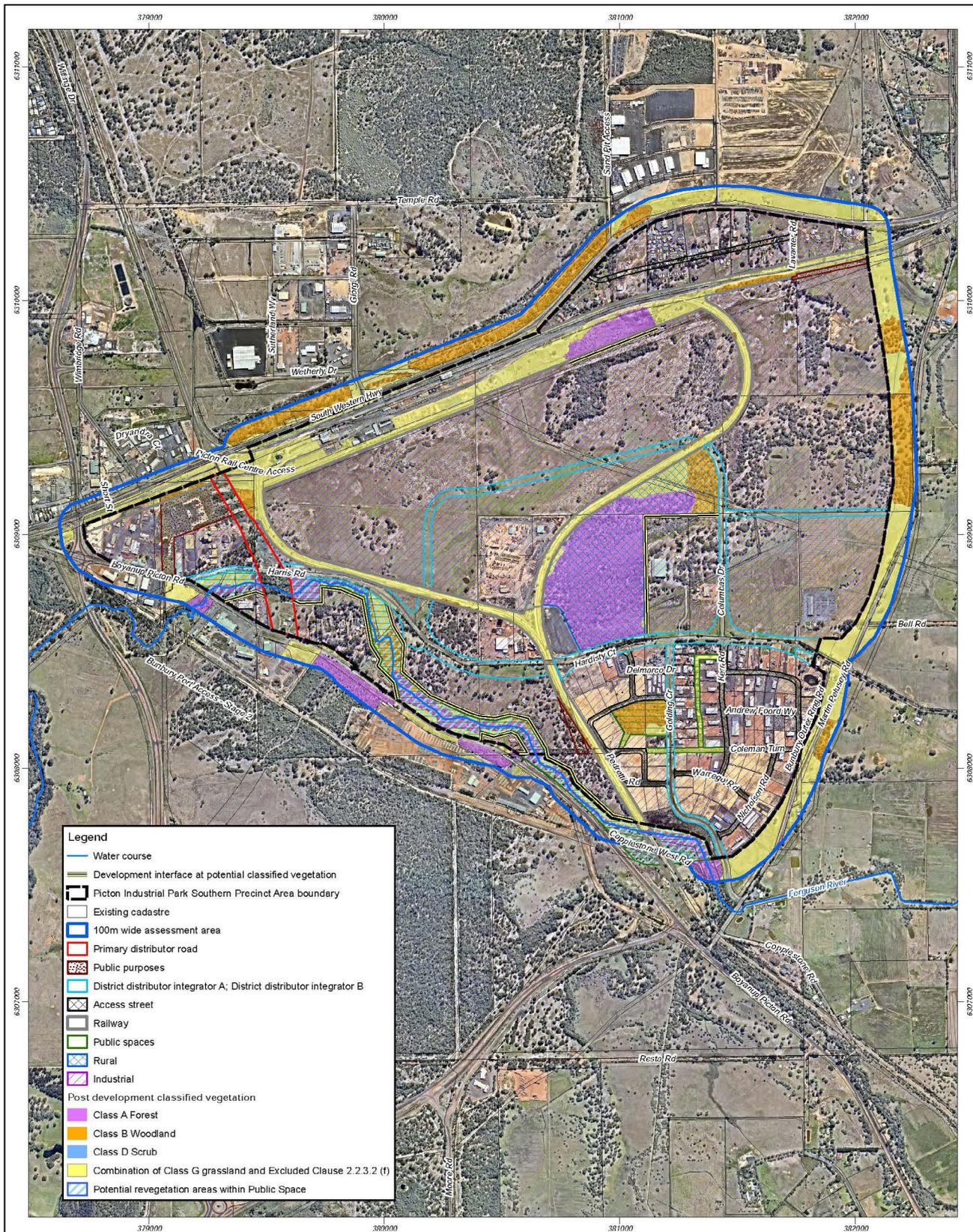


Figure 11: Picton South: Post development bushfire hazards

Scale 1:15,000 at A3



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas

Date: 3/05/2017

Author: jrcute

Source: Aerial image: Neamap, flown 03/2017. Existing cadastre and surface elevation: SLIP, Landgate 2017. Layout: Client 04/2017.



info@strategen.com.au
 www.strategen.com.au

Figure 10: Post-development bushfire hazards

2.5 Ferguson River foreshore

The Ferguson River partially traverses the DSP area along the southern boundary. The river and foreshore are predominantly reserved as Regional Open Space in the GBRs.

This section of the Ferguson River foreshore is considered by the EPA to be a regionally significant natural area of high value, representative of vulnerable ecological communities (Southern River complex in the west and Guildford in the east). The river foreshore is considered important as part of the regional ecological linkage from the Preston River to the Leschenault Estuary.

2.6 Heritage

The Register of Aboriginal Sites lists two registered sites as extending across portions of the DSP area:

- the Ferguson River and its foreshore (DAA 19796)
- DAA 4869 Bunbury 13

It also lists two other heritage areas:

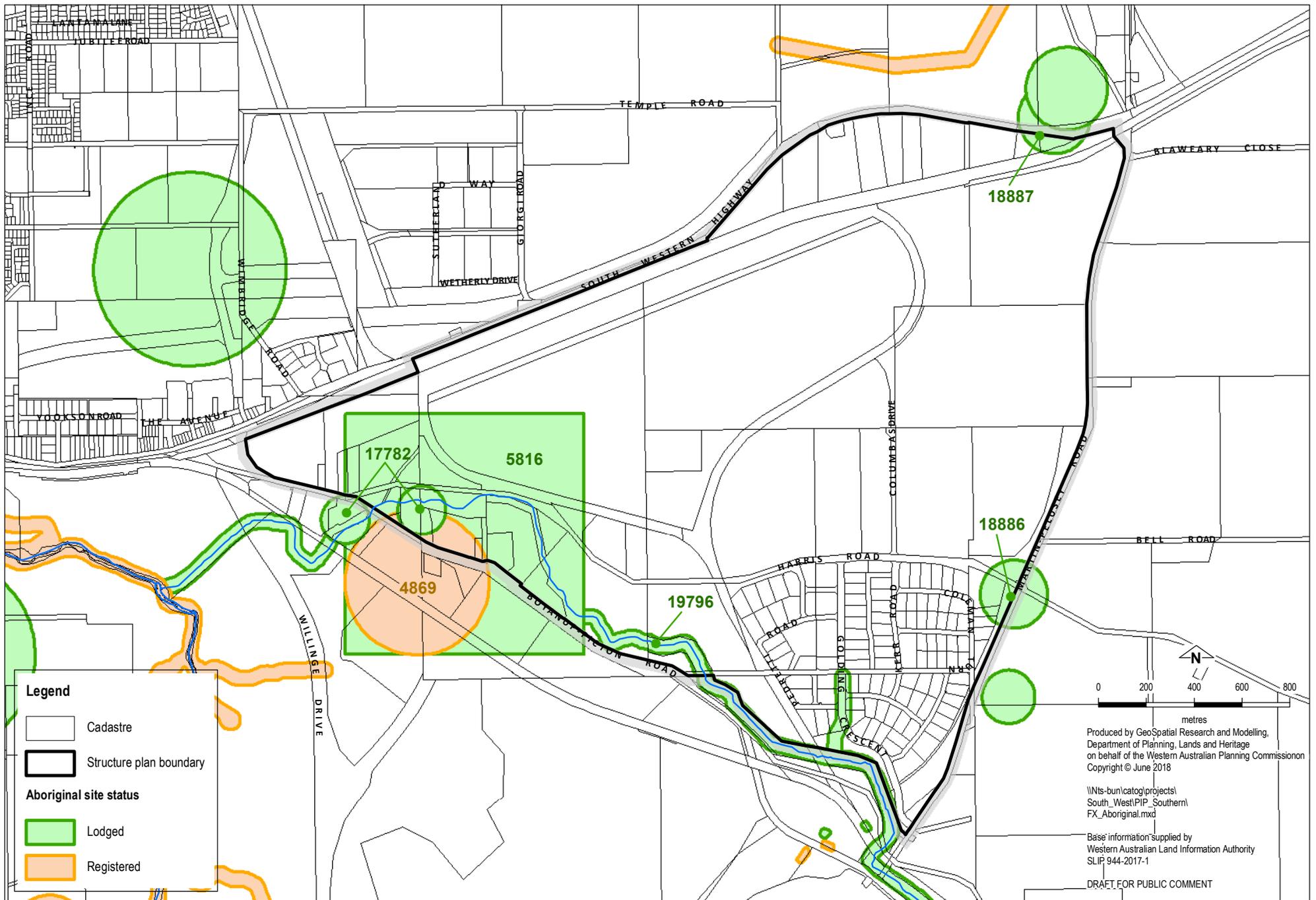
- DAA 5816 Bunbury/No.1 Highway
- DAA 17782 Boyanup Picton Road Camps

These sites are shown in Figure 11.

When developing land, land users and developers should use the *Cultural Heritage Due Diligence Guidelines* (Department of Aboriginal Affairs, April 2013) for assistance in identifying the adverse impact proposed activities may have on Aboriginal heritage values. The guidelines are available online at:

www.daa.wa.gov.au/globalassets/pdf-files/ddg

Also, proponents undertaking development should ensure they are informed of the obligations and provisions of the *Aboriginal Heritage Act 1972*. It is recommended that if Aboriginal sites to which this Act applies are planned to be impacted or damaged the proponent submit an application under S.18 before development proceeds.



0 200 400 600 800
metres

Produced by GeoSpatial Research and Modelling,
Department of Planning, Lands and Heritage
on behalf of the Western Australian Planning Commission
Copyright © June 2018

\\Nts-bun\catog\projects\
South_West\PIP_Southern\
FX_Aboriginal.mxd

Base information supplied by
Western Australian Land Information Authority
SLIP 944-2017-1

DRAFT FOR PUBLIC COMMENT

Figure 11: Identified Aboriginal heritage sites map

2.7 Electricity, water and sewer provision

Two significant Western Power 132 kilovolt overhead transmission lines traverse the DSP area, one running parallel to the Bunbury–Perth railway line and connecting to the Western Power sub-station at the western end of the DSP area and the other broadly east-west through Precinct 2 and terminating at the port. Easements related to these transmission line corridors are to be established at the time of subdivision / development. The easements must comply with the conditions of the easements or otherwise follow Western Power processes for assessment and approval.

There is a 66 kilovolt overhead transmission line that passes through Precinct 1 and also runs parallel with the railway line to connect with the sub-station. Precinct 4 has mainly underground distribution cables but there are some overhead lines. Aqwest provides water to the DSP area.

There is currently no Water Corporation sewer main connecting with any part of the DSP area. The nearest reticulated sewer connection is to the Ince Road, Glen Iris residential estate, north of South Western Highway and the Bunbury–Perth railway line, approximately two kilometres away.

The Water Corporation has confirmed that the Glen Iris wastewater pump station currently has a relatively small capacity but is planned to ultimately be the long-term transfer pump station for this area. The Picton South Industrial Park is located at the far south-eastern edge of the planned Glen Iris sewer district. The Water Corporation has undertaken high-level wastewater planning over the area and implementation of this planning is premised on the 'logical and orderly development of the area from west to east.' Proponents are encouraged to liaise with the Water Corporation as early as possible.

The southern and western portions of the DSP area are located within a sewage sensitive area as identified in the draft *Government Sewerage Policy* (Department of Planning 2016). Therefore, for any on-site domestic wastewater systems, secondary treatment systems (such as Aerobic Treatment Units) must be used.

ATCO's existing gas main runs north-south immediately to the east of Martin-Pelusey Road thus access to gas on the eastern side of the DSP area should be relatively straightforward. The former Department of Mines also noted in their submission to the draft DSP that there is an investigation corridor for the proposed Bunbury-Albany gas corridor within the DSP area which needs to be taken account of. Prospective developers should contact the now Department of Mines, Industry, Regulation and Safety to clarify the latest position.

2.8 Other land use constraints and opportunities

The DSP area lies outside the strategic agricultural resources area, the floodplain management policy area and strategic mineral resource areas identified by the GBRS *Strategic Agricultural Resource Policy, Floodplain Management Policy and Strategic Minerals* and the *Basic Raw Materials Resource Policy*. The eastern section of the DSP area lies within the 500 metre buffer area of the strategic agricultural resources area, however, with the development of the Waterloo Industrial Park, in due course, this policy area will need to be amended.

Lot 50 Harris Road (Plan 61135) has been assessed by the Department of Water and Environmental Regulation as contaminated by hydrocarbons with pesticides and metals present in soils and groundwater, and remediation required. Other lots are awaiting classification and have possible classification, and investigation is required. It is recommended development proponents seek advice from the Department of Water and Environmental Regulation on additional information on Lot 50 and other sites within the DSP area.

3. Land use and subdivision requirements

3.1 Land uses

The proposed land uses for the Picton South DSP area build on those already currently zoned and reserved in the GBRS. The industrial use zone will remain industrial, and industrial deferred will ultimately be rezoned as industrial through amendments to the GBRS and respective local planning schemes.

The Railway reserve, Primary Regional Roads, Public Utilities and Regional Open Space reserves and Rural zoning in the existing GBRS (see Figure 5) will be retained.

3.2 Movement networks

Transport - road

The GBRS reserves proposed primary road alignment to:

- Bunbury Outer Ring Road to the east of the DSP area, which Main Roads WA has indicated will be ultimately to freeway standard with limited accesses
- South Western Highway, which Main Roads WA has indicated will be upgraded to a dual carriageway with four lanes and a median strip and limited access into Precinct 1
- a port-access only service road running through the western part of the DSP area.

Main Roads WA has considered options for the alignment of the Bunbury Outer Ring Road and the WAPC has endorsed the proposed more easterly alignment east of Wanju and passing through the proposed Waterloo Industrial Park in a north-easterly to south-westerly orientation. Federal

Government funding has been approved for the construction of the Bunbury outer ring road and a Main Roads WA project team is carrying out detailed project design work associated with a final alignment and the road network.

Irrespective of the final alignment for the Bunbury Outer Ring Road it is likely that the existing Martin-Pelusey Road will be upgraded and realigned in places to provide access to north-south movements within the Greater Bunbury area, and the Picton South DSP area via Harris Road, without necessitating access onto the outer ring road.

Harris Road will need to be upgraded to the status of an integrator road. Given the physical constraints on the width of the road at the western end between the rail reserve to the north of the road reserve and the Regional Open Space along Ferguson River to the south the road cannot be upgraded beyond a single carriageway integrator B.

All internal local roads will be built to standards specified by the Shire of Dardanup and City of Bunbury respectively. This includes intersections being designed to accommodate the turning circle of a B-double vehicle.

Table 1: Summary of road proposals in DSP area

Key road proposals within DSP area	Proposed road category	Proposed ultimate No. of traffic lanes	Recommended road reserve width
Harris Road	District distributor integrator B	2	30 m ⁶
Columbas Drive	District distributor integrator B	2	30 m
Internal distributor road, Precinct 1	District distributor integrator B	2	30 m
Internal distributor road, Precinct 2	District distributor integrator B	2	30 m

⁶ The final requirement for the width of road reserve for Harris Road will be determined by modelling work currently being carried out.

3.3 Transport - rail

The areas within the DSP area but outside the development precincts are zoned and protected in the GBRS for existing and future rail uses. This area represents about 66 hectares of land.

The existing railway line running through the site is the disused line from Manjimup and the loop onto the Bunbury-Perth line. To allow for the potential re-opening of the freight rail line to Greenbushes these railway reserves need to be retained. The existing location of the at-grade railway crossing on Columbas Drive, accessing the land within the rail loop, represents the most suitable location for the rail crossing.

A second at-grade railway crossing will be required to connect Precinct 2 with Harris Road in the vicinity of the existing crossing allowing access to lot 16. The Bunbury-Perth railway line runs along much of the northern boundary of the DSP area and the Picton rail goods yard is immediately adjacent to Precinct 2.

Further discussions will need to be had with the Public Transport Authority to reach agreement regarding the acceptability of at-grade rail crossings.

3.4 Water management

The DSP area is presently constrained in relation to water management, due to it being serviced by agricultural drains and impacted by seasonal perched water tables and inundation. This leads to difficulty in providing on-site wastewater options, difficulty in accessing groundwater, as well as exacerbating catchment flood risk associated with the Ferguson River, and impacting on high value water resource assets (the Ferguson River and Resource Enhancement Wetland).

A *District Water Management Strategy* (Calibre Consulting, August 2017) has been developed for the DSP area to support the DSP and future development of the area. The focus of the document are the constraints as outlined above, with a strong focus on indicative wetland buffers and water foreshores, mapping out groundwater levels, on-site domestic wastewater options, and development of a drainage solution that can be applied in a fair and equitable manner to all landholdings in the DSP area.

The water sensitive urban design elements that the strategy will need to implement to achieve best management practice (see Figure 12) include the following:

Drainage management strategy

- On lot and off lot detention systems, combined with treatment systems such as bioretention gardens will capture and treat stormwater flows. All flows leaving the site up to the one per cent average event period (AEP) are generally to match the pre development rate.
- Lots will have a direct connection to the road network storm water system, after storage is exceeded on the lot.
- On lot storage is to be in accordance with the local authority guidelines.
- All finished floor levels will be designed to maintain a clear separation of 300 millimetres between the habitable floor levels and the one per cent AEP flood level, generated on site.
- All finished floor levels will be designed to maintain a clear separation of 500 millimetres between the habitable floor levels and the one per cent AEP) event flood level of the Ferguson River.
- Upstream flows, detailed in the Preston Industrial Park (Northern Precinct) drainage study, will be accounted for within the Preston Main Drain, as intended.
- Upstream flows within the Ferguson River will remain consistent with the Department of Water's flood modelling , which will be reported in the Drainage and Water Management Plan (DWMP).

Groundwater and acid sulfate soil management strategy

- Inflows to the groundwater are to be treated through bioretention media and plants within the basin and swales, to improve the quality of water prior to it entering the groundwater.
- A subsoil drainage system, interconnected with the swale network, will be used to control groundwater levels around buildings and roads.
- All groundwater level management is to focus on fill minimisation.
- Subsoil drainage systems are to incorporate amended filter media around them to treat groundwater prior to it entering the subsoil pipe.
- All groundwater discharged from sub-soil drains will be further treated through the vegetation within the receiving drainage system.
- An acid sulfate soils investigation is required within each local structure plan area. Acid sulfate soils will be handled in accordance with an acid sulphate soils management plan at subdivision stage.

Sustainable water servicing

- Industrial buildings are to be encouraged to incorporate rainwater storage devices where practical. These are to be plumbed to provide a source of internal and external non-potable water.
- All lots are to be connected to a potable reticulated water main to provide security of supply.
- Lots are to be connected to mains sewage unless detailed planning shows a portion is suitable to dry industry or onsite effluent management, using alternative treatment units (ATUs).
- Non potable water may come from a variety of sources including some stormwater harvesting and treated wastewater. Detailed investigations are to be undertaken to determine suitable solutions prior to development beginning.

- Provision of awareness-raising material on water saving measures to business developers.
- Landscaping on private lots to be in accordance with waterwise landscaping principles as directed by the local authority.

Water dependent ecosystem management

- New waterway habitat will be created within upgraded and new swales.
- Bioretention systems and detention basins will provide riparian wetland habitat.
- Existing native wetland vegetation is to be retained wherever possible, by incorporating it into public open space areas, reserves or left as its existing rural land use. These areas will also be enhanced as appropriate with revegetation and weed control.
- The Ferguson River to be protected within foreshore reserves where possible. The reserve area is to be rehabilitated to enhance the ecological functioning of the waterway.
- Foreshore management plans are to be produced for the Ferguson River as adjoining lot areas are developed. foreshore management plans must be completed at the local structure plan stage and developed concurrently with bushfire management plans to avoid unintended consequences.
- The Water Sensitive Urban Design elements used on site will treat stormwater and groundwater, improving the water quality prior to it entering downstream ecosystems.
- A wetland management plan should be developed for the resource enhancement wetland at the local structure plan stage.

Monitoring and maintenance

- Pre-development monitoring of surface water and groundwater is to build on the works currently undertaken by the Department of Water and Environmental Regulation and private lot owners/developers. It is to include both level and quality. This is either to be done as part of each relevant local water management strategy or as part of a separate overall study.
- Monitoring is to be undertaken through the construction phase of each stage for surface water, groundwater and acid sulfate soil disturbance.
- Post development monitoring is to consider surface and groundwater quality, ecosystem enhancement and Water Sensitive Urban Design structural performance

Implementation and governance

- Developers are to undertake detailed local water management strategies and Urban Water Management Plans for their relevant stage to provide the necessary information for management of water across the site.
- Servicing agreements and a service provider are to be established prior to development beginning.
- The local authority, Department of Planning, Lands and Heritage and Department of Water and Environmental Regulation are to continue to provide guidance, direction and assistance so that the targets outlined in this report are able to be realised.

Fill management

- Fill minimisation is to be a key consideration in all developments within the DSP area.
- Utilisation of techniques such as a close network of subsoils and swales are to be investigated to minimise groundwater mounding and control groundwater rise.
- Infrastructure that can be built within and on top of minimal fill are to be preferentially used to reduce fill requirements.

Developers will be required to produce a local water management strategy to support the local structure plan. This will require completion of any associated wetlands and remnant vegetation management plans and the Ferguson River foreshore management plan, which must also align with a bushfire management plan that takes account of the proposed long-term revegetation outcomes.

Commitments in the wetlands and remnant vegetation management plans and the Ferguson River foreshore management plan will need to be implemented at subdivision stage or earlier.

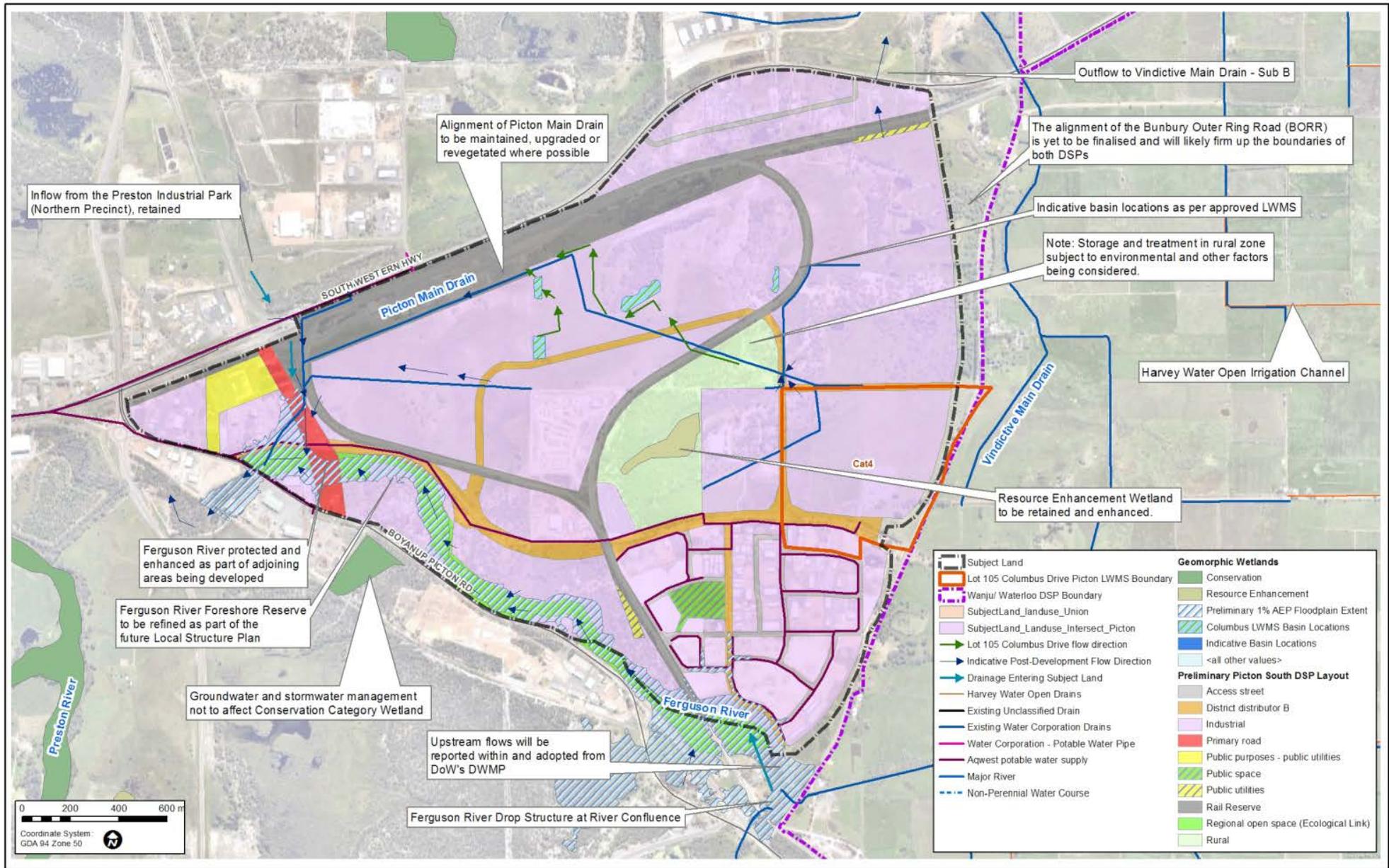


Figure 12: Key Elements of the District Water Management Strategy

3.5 Development contributions

Development contributions can be sought by local government for items of infrastructure required to support the development of an area through the production of development contribution plans to outline the arrangements for contributions for the DSP area.

Such plans can be formalised through amendments to the respective local planning schemes and, once approved, the plans will effectively form part of the local planning schemes, ensuring statutory compliance.

Should the city and shire wish to pursue a developer contribution plan they will become the custodians and administrators of their respective plans, including the collection of contributions and their expenditure.

Appendix one: reference documents

State Government

- *Better Urban Water Management* (DoW, 2008)
- *Bunbury Wellington Region Plan* (WAPC, 1995)
- *Cultural Heritage Due Diligence Guidelines* (DAA, April 2013)
- *Draft Greater Bunbury Strategy* (Department of Planning and WAPC, June 2011)
- *Greater Bunbury Region Scheme* (WAPC)
- *Greater Bunbury Region Scheme Amendment 0024/41 (major amendment) Industrial Deferred Zone* (WAPC, March 2013)
- *Greater Bunbury Region Scheme Amendment 0024/41 (major amendment) Industrial Deferred Zone Report on Submissions* (WAPC, November 2013)
- *Greater Bunbury Strategy 2013 – Final Report* (Department of Planning and WAPC, 2013)
- *Industry 2030 – Greater Bunbury Industrial Land and Port Access Planning* (WAPC, 2000)
- *State Planning Strategy 2050* (WAPC, 2014)
- *South West Region Water Plan 2010-30* (DoW, 2010)
- *South West Regional Planning and Infrastructure Framework* (WAPC & DoP, 2015)

Local government

Shire of Dardanup

- Town Planning Scheme No.3
- *Local Planning Strategy* (2015)

City of Bunbury

- *Local Planning Strategy* (January 2018)
- Local Planning Scheme No.8

Existing structure plans

- *Greater Bunbury Structure Plan* (DoP & WAPC, 2013)
- *Preston Industrial Park Northern Precinct Structure Plan* (WAPC, 2009)
- *Bunbury Port Inner Harbour Structure Plan* (Bunbury Port Authority & TME, 2009)

Environmental Protection Authority

- *Advice on Areas of Conservation Significance in the Preston Industrial Park*, Bulletin 1282 (EPA, March 2008)

Other documents

- *Preston Industrial Park Land Use and Port Access Study* (Feilman Planning Consultants et al 1997)
- *District Water Management Strategy to Support the Picton South District Structure Plan* (Calibre Consulting, 2017)
- *Bushfire Hazard Level Assessment, Wanju, Waterloo and Picton South District Structure Plans* (Strategen, 2017)

Appendix two: Abbreviations

DAA	Department of Aboriginal Affairs
DSP	District Structure Plan
EPA	Environmental Protection Authority
GBRS	Greater Bunbury Region Scheme
SPP	State Planning Policy
WAPC	West Australian Planning Commission