LOT 1221 LAKES ROAD + PART OF LOT 1400 PATERSON ROAD, NAMBEELUP STRUCTURE PLAN

PART ONE | IMPLEMENTATION REPORT

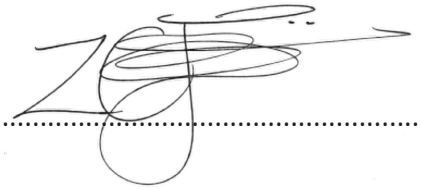
JULY 2023

CLE Town Planning + Design

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

22 December 2023

Signed for and on behalf of the Western Australian Planning Commission:



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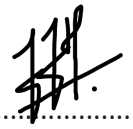
an officer of the Commission duly authorised by the Commission pursuant to section 24 of the *Planning and Development Act 2005* for that purpose, in the presence of:



Witness: .....

Date: 02 January 2024

Date of Expiry: 02 January 2034

TABLE OF AMENDMENTS

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	DATE APPROVED BY WAPC

Title:	Lot 1221 Lakes Road and Part of Lot 1400 Paterson Road, Nambeelup Structure Plan Part One Implementation Report
Prepared for:	Peel Estates (WA) Pty Ltd and Westprime Asset Pty Ltd
CLE Reference:	2155Rep103B
Date:	July 2023
Status:	Final
Prepared by:	CLE Town Planning + Design
Project team:	Town Planning + Design - CLE Town Planning + Design Environmental - Coterra Environment Hydrology - JDA Consulting Hydrologists Engineering - Cossill & Webley Consulting Engineers Traffic - Transcore Bushfire - Bushfire Safety Consulting

EXECUTIVE SUMMARY

The Lot 221 Lakes Road and Part Lot 1400 Paterson Road, Nambeelup Structure Plan ('the Structure Plan') comprises approximately 201 hectares of land, being generally bound by Lakes Road (north), Paterson Road (west), the Nambeelup Brook (south) and rural land (east).

The Structure Plan area is zoned 'Industrial' under the Peel Region Scheme (PRS) and 'Industrial Development - Nambeelup' in the Shire of Murray Town Planning Scheme No. 4 (TPS4). This Structure Plan is lodged in accordance with TPS4 provisions which requires a structure plan prior to development or subdivision for land zoned 'Industrial Development'.

The Structure Plan realises the strategic planning for the area with Perth and Peel@3.5million and the South Metropolitan Peel Sub-regional Framework ('the Framework') identifying the land as suitable for future industrial development, stating that this new industrial area will be developed as the Peel Business Park with the ongoing development of the business park 'one of the key strategies for achieving a broader and diversified industry base to boost jobs in the Peel region'.

The Framework is further supported by the Nambeelup Industrial Area District Structure Plan (DSP) which was endorsed by the Western Australian Planning Commission in 2016. The DSP depicts the Structure Plan area as being for 'Industrial' purposes with a centralised portion of the site being identified for 'Open Space'.

The Structure Plan is entirely consistent, and realises the objectives of both the Sub-regional Framework and the DSP, and continues with the logical expansion of the long planned Nambeelup Industrial Park.

Through the inclusion of a permeable and legible local road network, the Structure Plan establishes an interconnected interface for both existing and future development of the surrounding land, as well as connecting into the higher order movement network. The central public open space area has been designed to retain the wetlands identified in the DSP for protection.

All essential service infrastructure is located within proximity and is easily extended to the Structure Plan area.

The Structure Plan is supported by a number of technical reports which are provided as appendices and summarised in Part 2:

- Environmental Assessment Report.
- Bushfire Management Plan.
- Transport Impact Assessment.
- Local Water Management Strategy.
- Engineering Servicing Report.

These reports comprehensively address all of the relevant planning considerations and demonstrate that the land is suitable for industrial development in the form proposed.

Table 1 provides a land use summary of the Structure Plan.

Table 1: Land Use Summary

ITEM	DATA	SECTION NUMBER REFERENCE WITHIN PART TWO OF THE STRUCTURE
Total area covered by the structure plan	201.39 ha	Section 1.2.3
Area of each land use proposed		Section 3.1
Zones (as per the Scheme)		
- Service Commercial	8.48 ha	
- Nambeelup Industrial	97.53 ha	
Reserves (as per the Scheme and PRS)		Section 3.2
- Recreation/Conservation	39.69 ha	
- Public Purpose: Drain	3.99 ha	
- Road Reserves[1]	51.70 ha	

Note:
1. Road reserve area includes required widening to Lakes Road.

CONTENTS

PLANS

1.0 STRUCTURE PLAN AREA

This Structure Plan shall apply to Lot 221 Lakes Road and Part of Lot 1400 Paterson Road, Nambeelup being the land contained within the inner edge of the line denoting the structure plan boundary on the Structure Plan Map (Plan A).

The Structure Plan is identified as the Lakes Road Structure Plan.

2.0 STRUCTURE PLAN CONTENT

This Structure Plan comprises:

- Part One – Implementation
- Part Two – Explanatory Report
- Appendices – Technical Reports

Part One of the Structure Plan comprises the Structure Plan map and planning provisions. Part Two of the Structure Plan is the planning report component which can be used to interpret and implement the requirements of Part One.

3.0 OPERATION

The Lakes Road Structure Plan comes into effect on the date that it is endorsed by the Western Australian Planning Commission. It remains valid for a period of 10 years from the commencement date of the Structure Plan, unless the period of approval is otherwise extended in accordance with the Planning and Development (Local Planning Schemes) Regulations 2015.

4.0 INTERPRETATION AND RELATIONSHIP WITH STATUTORY PLANNING FRAMEWORK

The Lakes Road Structure Plan constitutes a Structure Plan pursuant to Section 6.13 of the Shire of Murray Town Planning Scheme 4 and the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 - Deemed provisions for local planning schemes.

The Structure Plan Map outlines future land use, zones and reserves applicable within the structure plan area.

Pursuant to the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 - Deemed provisions for local planning schemes, a decision maker of an application for development approval or subdivision approval is to have due regard to the provisions of this Structure Plan, including the Structure Plan Map, Implementation Report, Explanatory Report and Technical Appendices.

5.0 STAGING

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

6.0 LAND USE

6.1 Land Use and Zones

The subdivision and development of land is to generally be in accordance with the Lakes Road Structure Plan.

Land use permissibility within the Structure Plan area shall be in accordance with the corresponding zone or reserve under the Shire's Local Planning Scheme, or as otherwise outlined in this Structure Plan.

6.2 Public Open Space

The provision of public open space being provided generally in accordance with the Public Recreation / Conservation Local Scheme Reserve shown on the Structure Plan map. The land reserved for Public Recreation/Conservation will be vested with and managed by the Shire.

7.0 SUBDIVISION AND DEVELOPMENT

7.1 Local Development Plans / Design Guidelines

The preparation of a Local Development Plan be required by the Western Australian Planning Commission (WAPC), on the advice of the Shire of Murray, as a condition of subdivision approval, where deemed necessary for land comprising, but not limited to:

(i) Lots fronting Lakes Roads and Paterson Road to address consolidated vehicle access and circulation.

(ii) Lots with direct boundary frontage (primary or secondary) to an area of a Public Purpose: Drain reservation.

Design Guidelines are to be prepared as a precursor to development. Design Guidelines will be adopted as a Local Planning Policy to address matters, including, but not limited to:

(i) Vehicular access restrictions and parking;

(ii) Interface with Lakes / Paterson Road;

(iii) Site Layout and Building Orientation;

(iv) Setbacks;

(v) Built form, materials and articulation;

(vi) Landscaping;

(vii) Signage;

(viii) Fencing;

(ix) Site coverage;

(x) Environmentally sustainable design;

(xi) Lots with direct boundary frontage (primary or secondary) to an area of a Public Purpose reservation.

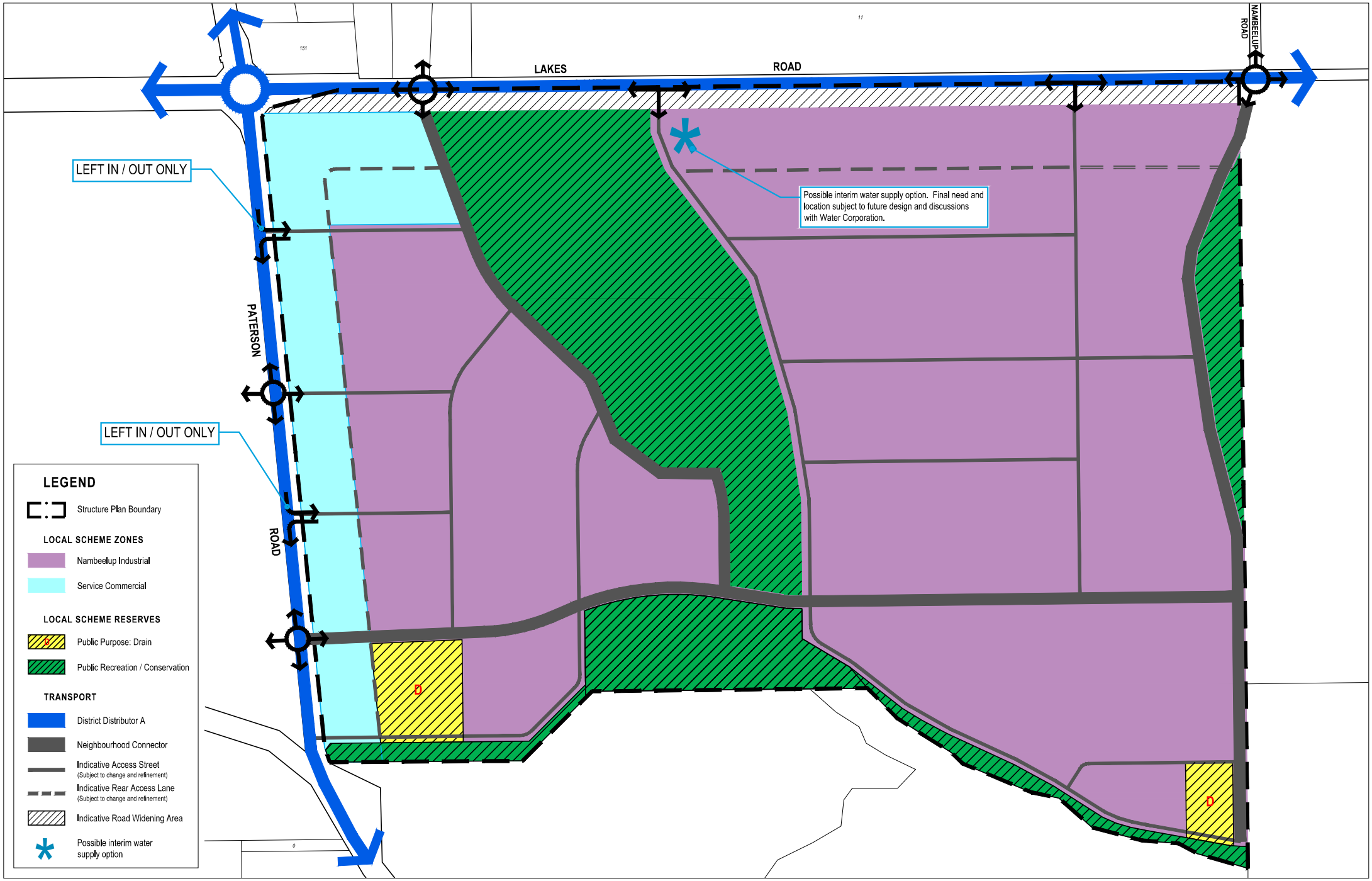
7.2 Development Contributions

A mechanism for the equitable provision of shared infrastructure will be required to enable the coordinated delivery of shared infrastructure across the wider Nambeelup Industrial Area as identified in the Nambeelup Industrial Area District Structure Plan. In addition to the items identified in the District Structure Plan, a contribution will be required for the upgrade of the Paterson Road traffic bridge located to the south west of this Structure Plan area.

8.0 OTHER REQUIREMENTS

8.1 Conditions of Subdivision Approval

ADDITIONAL INFORMATION	APPROVAL STAGE	CONSULTATION REQUIRED
Nambeelup Brook Foreshore Management Plan	Prior to Subdivision Application	Shire of Murray
Bushfire Management Plan	Subdivision Application	Shire of Murray
Independent Road Safety Design Audit	Subdivision application	Shire of Murray
Infrastructure Services Staging Plan	Subdivision application	Shire of Murray
Design Guidelines	Subdivision Approval Condition	Shire of Murray
Urban Water Management Plan (to include water quality monitoring confirmation report and water quality modelling)	Subdivision Approval Condition	Shire of Murray Department of Water and Environmental Regulation
Acid Sulphate Soils Management Plan	Subdivision Approval Condition	Department of Water and Environmental Regulation
Public Open Space and Revegetation Management Plan	Subdivision Approval Condition	Shire of Murray
Local Development Plan(s)	Subdivision Approval Condition	Shire of Murray
Fauna Relocation Management Plan	Subdivision Approval Condition	Shire of Murray
Mosquito Management Plan	Subdivision Approval Condition	Shire of Murray
Ecological Linkage Staging and Revegetation Concept Plan	Prior to Subdivision Approval	Shire of Murray



CLE Town Planning + Design

LOCAL STRUCTURE PLAN

Lot 221 Lakes Road and Part Lot 1400 Patterson Road, Nambeelup

plan no: **2155-101B-01**
date: 23 June 2023
scale: 1:6,000 @A3, 1:3,000 @A1

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LOT 1221 LAKES ROAD + PART OF LOT 1400 PATERSON ROAD, NAMBEELUP STRUCTURE PLAN

PART TWO | EXPLANATORY REPORT

JULY 2023

CLE Town Planning + Design

Title:	Lot 1221 Lakes Road and Part of Lot 1400 Paterson Road, Nambeelup Structure Plan Part Two Explanatory Report
Prepared for:	Peel Estates (WA) Pty Ltd and Westprime Asset Pty Ltd
CLE Reference:	2155Rep104B
Date:	13 July 2023
Status:	Final
Prepared by:	CLE Town Planning + Design
Project team:	Town Planning + Design - CLE Town Planning + Design Environmental - Coterra Environment Hydrology - JDA Consulting Hydrologists Engineering - Cossill & Webley Consulting Engineers Traffic - Transcore Bushfire - Bushfire Safety Consulting

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PLANS

APPENDICES

1.0 PLANNING BACKGROUND

1.1 Introduction and Purpose

The Lot 1221 Lakes Road and Part Lot 1400 Paterson Road, Nambeelup Structure Plan ('the Structure Plan') has been prepared on behalf of Peel Estates (WA) Pty Ltd and Westprime Asset Pty Ltd and comprises approximately 200ha of land, being generally bound by Lakes Road (north), Paterson Road (west), the Nambeelup Brook (south) and rural land (east).

This Structure Plan is lodged in accordance with the Shire of Murray Town Planning Scheme No. 4 which requires a structure plan for land zoned 'Industrial Development - Nambeelup'.

The purpose of the Structure Plan is to provide a planning framework to guide future subdivision and development of the site. It realises the long-planned intent for the site to be delivered as key industrial land, most recently that of Perth and Peel@3.5million and the South Metropolitan Peel Sub-regional Framework which identifies the land as 'Industrial Expansion' with delivery anticipated in the short to medium term.

The format of the Structure Plan follows that set out in the Western Australian Planning Commission's (WAPC) Structure Plan Framework, comprising three parts:

Part 1: Implementation Section: Contains the Structure Plan map and outlines the requirements that will be applied when assessing subdivision and development applications.

Part 2: Explanatory Section: Discusses the key outcomes and planning implications of the background and technical reports and describes the broad vision and more detailed planning framework being proposed. Part 2 is based on a detailed site-specific analysis of opportunities and constraints and the following Technical Reports and strategies:

- Environmental Assessment Report (Coterra Environment).
- Bushfire Management Plan (Bushfire Safety Consulting).
- Transport Impact Assessment (Transcore).
- Local Water Management Strategy (JDA Consulting Hydrologist).
- Engineering Servicing Report (Cossill & Webley Consulting Engineers).

Part 3: Technical Appendices: Includes the technical report, supporting plans and maps as prepared by the technical consultants in support of the proposal.

1.2 Land Description

The following section provides a brief summary of the location, land use and ownership of the Structure Plan area.

1.2.1 Location

The Structure Plan is in the Shire of Murray, approximately 60 kilometres south of Perth, 10 kilometres east of the Mandurah town centre (Figure 1: Location Plan).

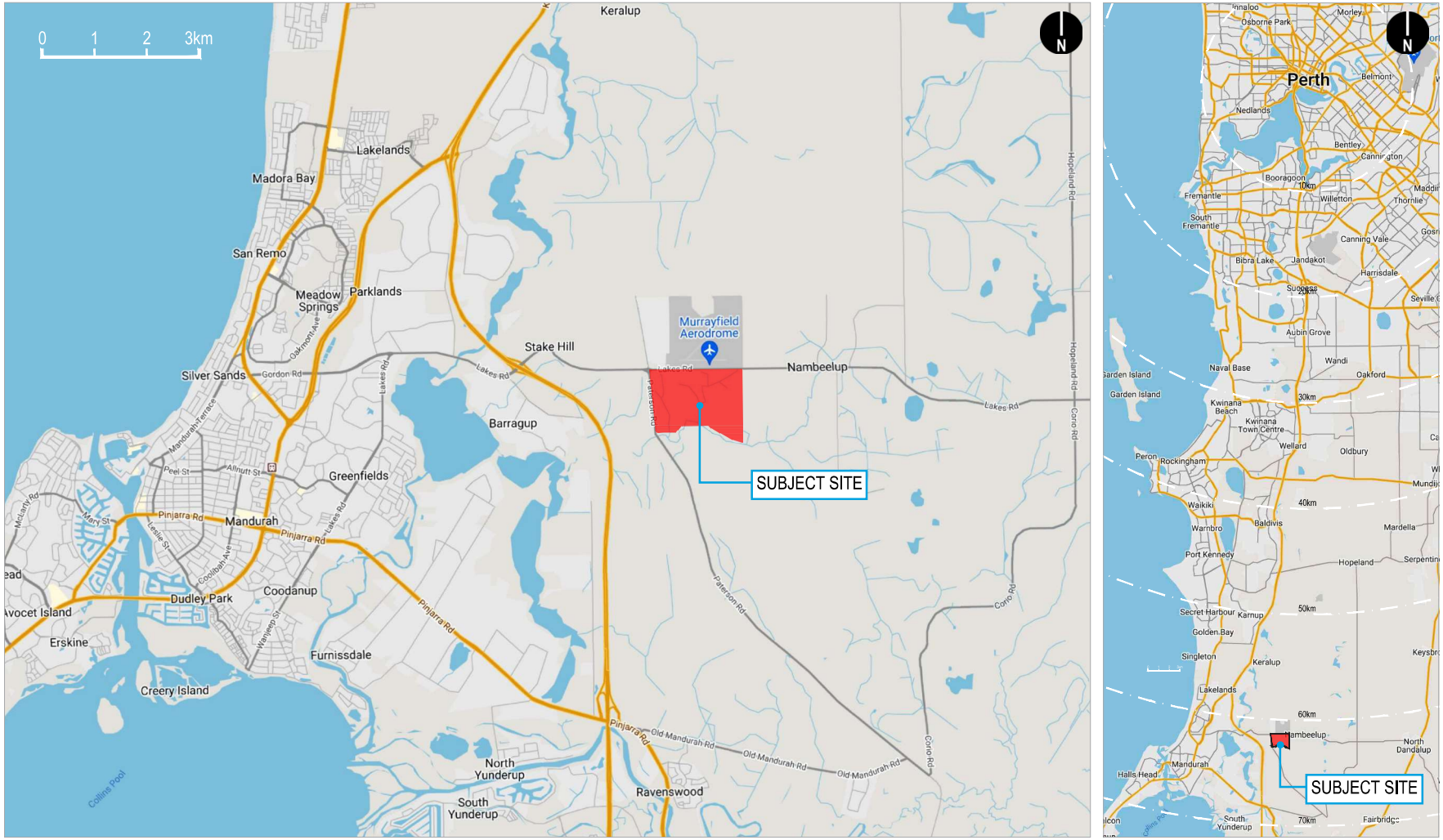

Figure 1 - Location Plan
Source: SLIP

The Structure Plan area is generally bound by:

- Lakes Road to the north;
- Paterson Road to the west;
- Nambeelup Brook to the south; and
- Rural zoned land to the east.

The Structure Plan will see the planning framework that will support the development of the land for industrial purposes.

1.2.2 Area and Land Use

The Structure Plan comprises 2 individual titles measuring a total area of approximately 203 hectares, comprising the entirety of Lot 1221, and a 17 hectare portion of adjoining Lot 1400 located north of the Nambeelup Brook.

The Structure Plan area is largely undeveloped and in more recent times has been used as a beef farming operation, with grazing continuing to occur onsite (Figure 2: Site Plan). This past and current agricultural use has had a considerable impact on the natural environment of the site.

1.2.3 Ownership and Title Details

The Structure Plan comprises two separate titles, with the legal description of this land set out in Table 1.

Table 1: Land Description

Lot No.	Diagram/Plan	Volume/Folio	Owner
1221	P418859	2982/885	Peel Estates (WA) Pty Ltd Westprime Asset Pty Ltd
400	DP405854	2891/190	Dawn Patricia Ayres Phillip Raymond Ayres Raymond Francis Ayres Susan Kathleen Ayres Chye Heng Tan Siak Boey Tan

Peel Estates (WA) Pty Ltd and Westprime Asset Pty Ltd has a controlling interest over Lot 1221 and as the major landowner has prepared the Structure Plan.

1.2.4 Surrounding Land Use and Context

The Structure Plan represents the next phase in delivery of the land as an industrial estate with the following a brief summary of the local context:

- Murrayfield Airport directly interfaces the Structure Plan on the northern side of Lakes Road. Murrayfield Airport is a registered, non-controlled aerodrome owned and operated by the Royal Aero Club of Western Australia.
- Land to the west and north-west is zoned for industrial development and is currently at varying stages of planning and construction, as the initial stages of what is now known as the Peel Business Park.

Figure 2 - Site Plan
Source: Nearmap/SLIP

- Land to the south is made up of larger rural landholdings, primarily for agricultural use containing no urban development.
- Land to the east is similar rural landholdings containing no urban development, but which is identified as land for future industrial development. It is noted that a former abattoir was located on the neighbouring property (Lot 1), although this has ceased operations.
- Kwinana Freeway (reserved 'Primary Regional Roads') is located approximately 1km west of the Structure Plan area.

1.3 Planning Framework

1.3.1 Peel Region Scheme Zoning

The Structure Plan area is zoned 'Industrial' in the Peel Region Scheme (Figure 3: PRS Zoning). Lakes Road and the Murrayfield Airport which runs along the norther boundary is zoned 'Rural'.

1.3.2 Shire of Murray Town Planning Scheme No. 4

The Structure Plan area is zoned 'Industrial Development - Nambeelup' in the Shire of Murray Local Planning Scheme No. 4 (LPS4).

Section 6.13 of LPS4 requires a structure plan prior to subdivision or development for land falling in an 'Industrial Development' zone a structure plan.

LPS4 goes on to establish objectives for the Nambeelup portion of the 'Industrial Development' zone:

a. *Achieve job creation through the delivery of industrial development opportunities.*

b. *Designate an industrial area of regional significance which reflects the objectives of the Nambeelup Industrial Area District Structure Plan.*

c. *Achieve a cluster of agri-food and agri-processing operators and associated industries.*

d. *Accommodate conventional light and general industries together with limited service commercial and commercial support uses.*

e. *Demonstrate the viability of innovative servicing solutions*

This Structure Plan fulfils the zoning requirements in LPS4 and facilitates the development objectives for the Nambeelup locality.

1.3.3 Nambeelup Industrial Area District Structure Plan (WAPC 2016)

The Structure Plan area is located within the Nambeelup Industrial Area District Structure Plan (DSP). (Figure 4: TPS4 Zoning)

This DSP was prepared and endorsed by the Western Australian Planning Commission in 2016 and provides a broad framework for the development of the Nambeelup Industrial Area. As the district level planning framework for the area, the DSP sets out a higher-level context for land use, major roads, and open space (Figure 5: Nambeelup Industrial Area District Structure Plan).

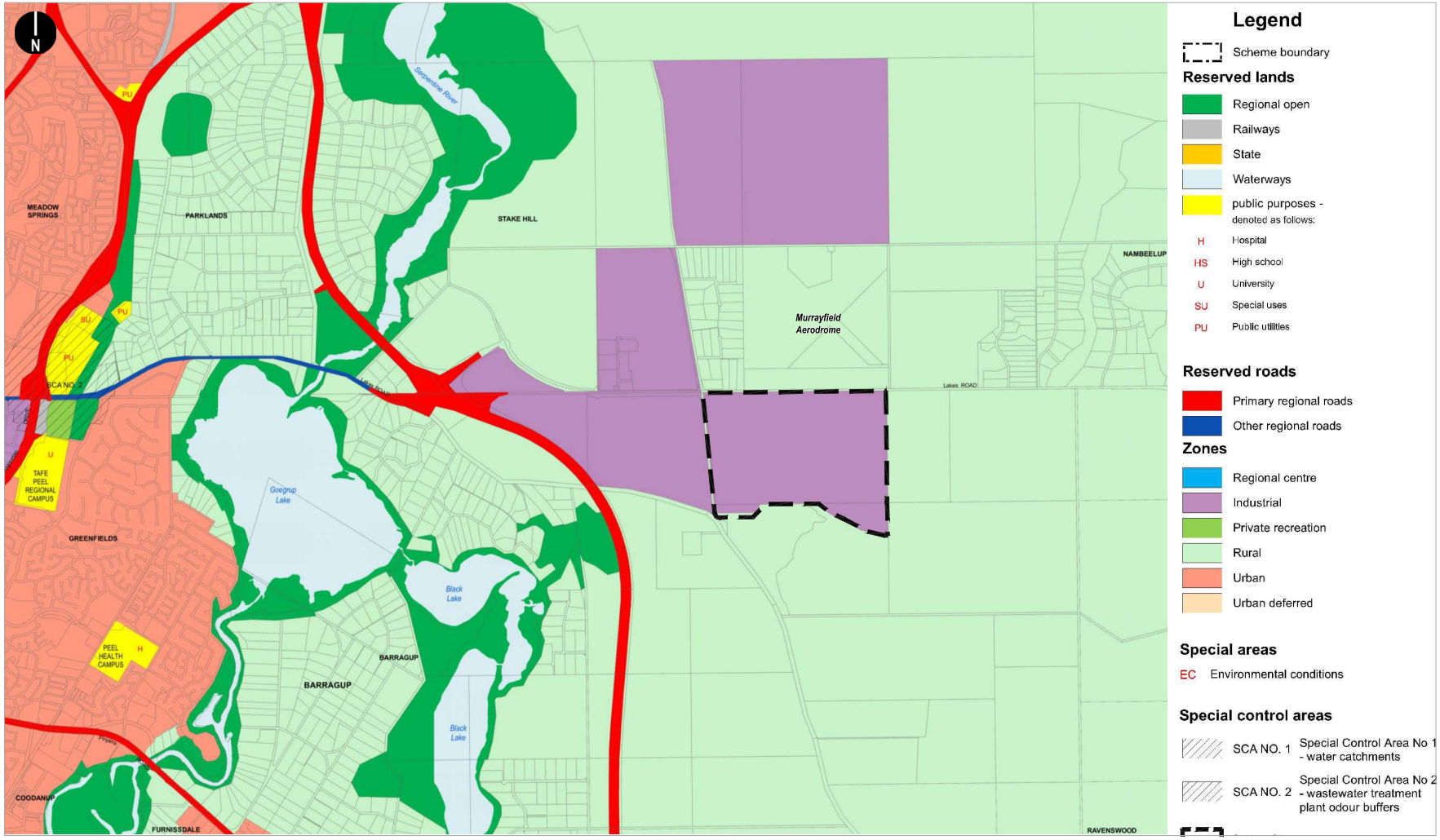

Figure 3 - Peel Region Scheme Zoning
Source: DPLH

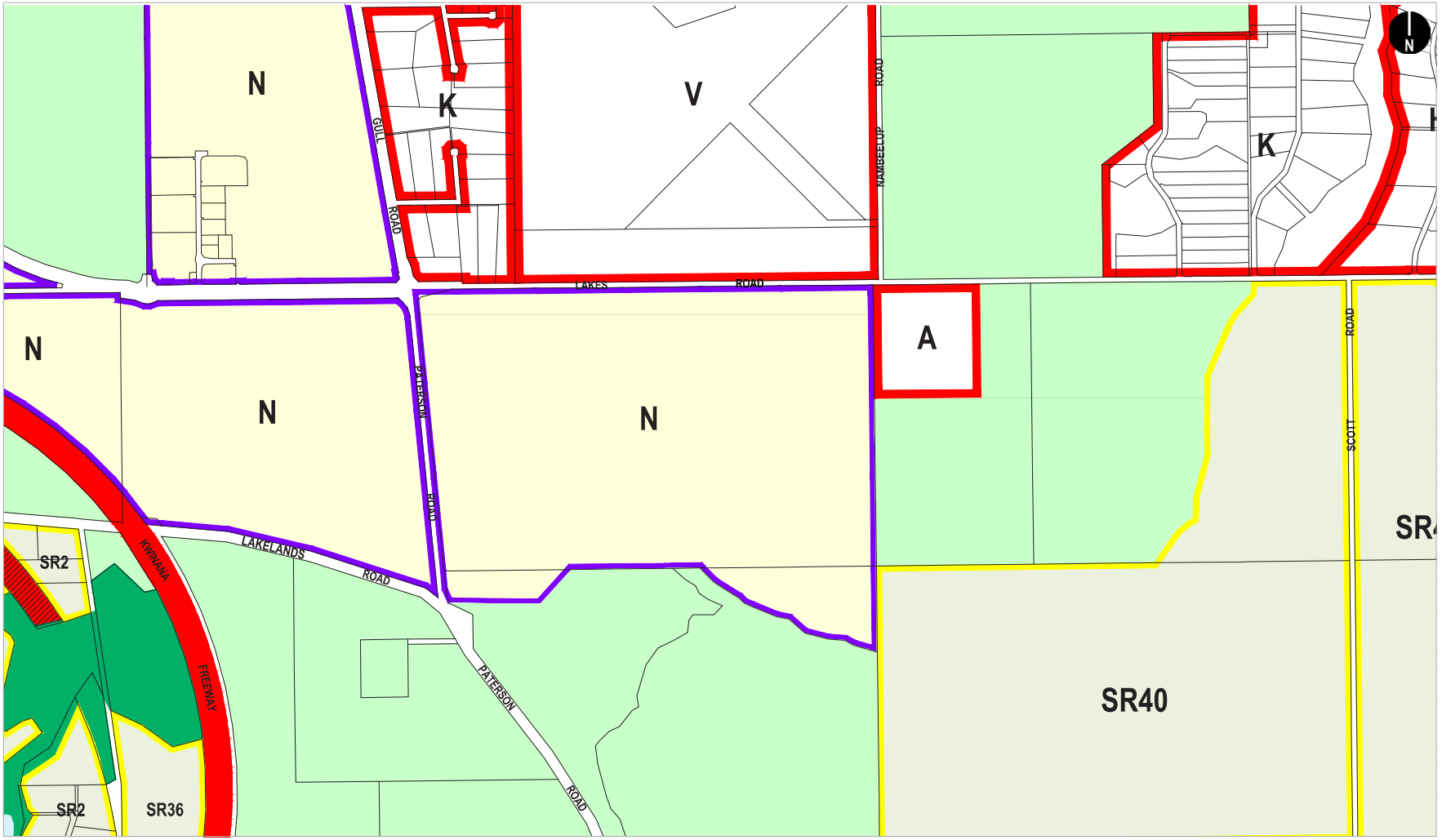

Figure 4 - Local Planning Scheme No. 4
Source: DPLH

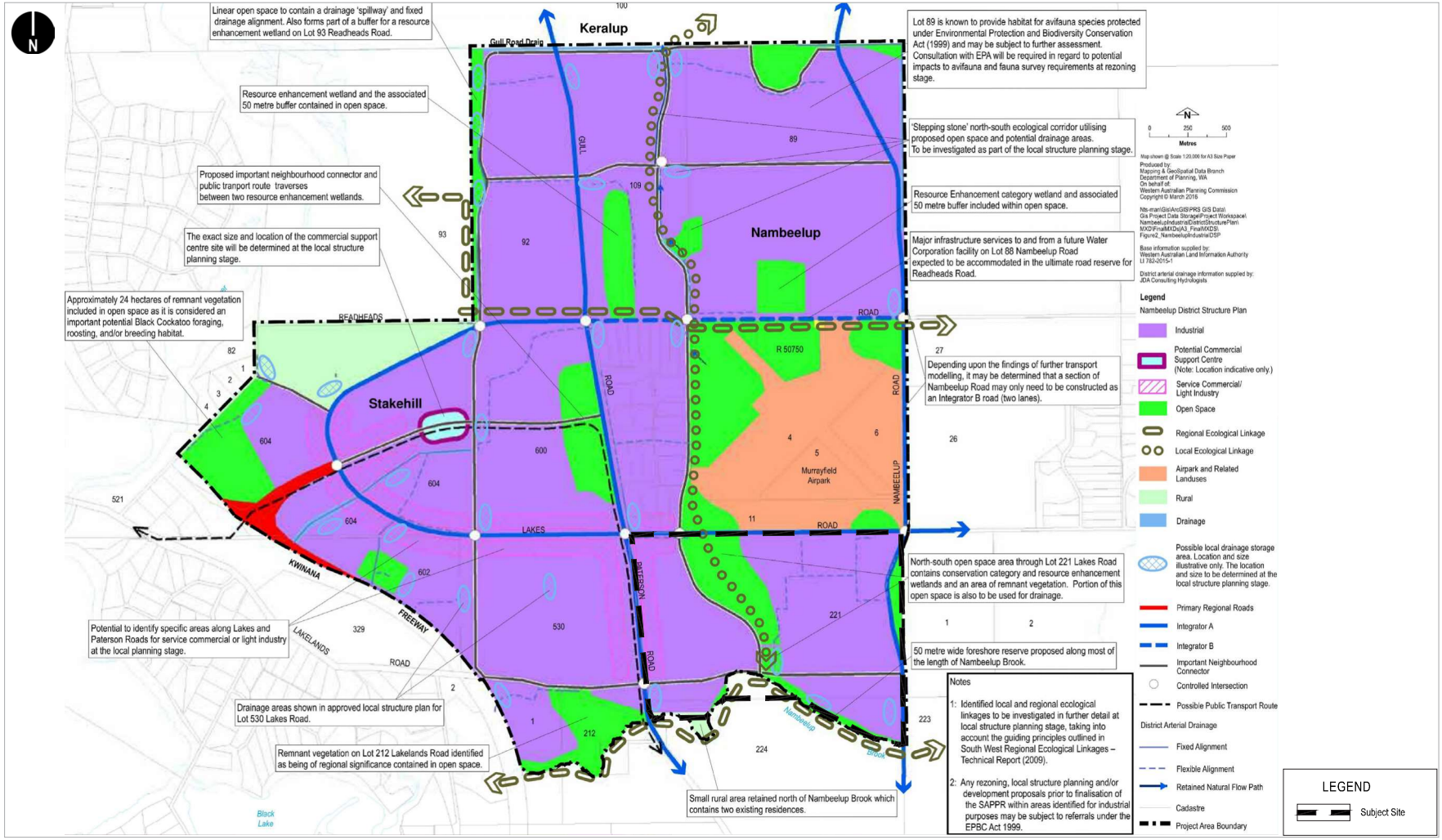

Figure 5 - Nambeelup Industrial Area District Structure Plan

Source: DPLH

The Structure Plan realises the objectives of the DSP, creating an industrial development that appropriately responds to its context.

Key points set out in the DSP that are directly applicable to the Structure Plan area:

- Depicts the Structure Plan area as being for 'Industrial' purposes but enabling 'Service Commercial (Light Industrial)' uses to be located along the eastern side of Paterson Road and on the southern side of Lakes Road at the Lakes/Paterson Road intersection.
- Shows a centralised portion of the site being identified for 'Open Space', positioned to capture important environmental assets, whilst also contributing to a larger 'Local Ecological Linkage' spanning the depth of the DSP area; connecting Keralup in the north, through to Nambeelup Brook in the south.
- Requires all internal roads within the Structure Plan will be a minimum of 20m in width with a carriage way of 10m, wider in instances of high road order or where roadside swales are required.
- Suggest that Nambeelup Road should be extended from the north, over Nambeelup Brook providing a future connection to Keralup (as a four-lane divided carriageway), to be confirmed via more detailed traffic modelling.

The Structure Plan realises the objectives of the DSP creating an industrial estate with the general commercial interface to the key roads, all framed around the central area of public open space.

1.3.4 Strategic Planning Framework

The Structure Plan is consistent with, and supported by the relevant strategic planning framework, as detailed below.

Perth and Peel@3.5million (March 2018)

Perth and Peel@3.5million provides a high level 'spatial framework' and strategic plan that manages the growth of the Perth and Peel metropolitan region and provides a framework to guide the planning and delivery of essential infrastructure and services.

Perth and Peel@3.5million includes the Structure Plan area within the South Metropolitan Peel Sub-region, forecasting this sub-region to experience considerable economic and population growth, more than double from 523,400 people in 2011 to 1.26 million by 2050. This population growth will similar see the sub-region growth rise to an estimated 437,730 jobs by 2050. These employment opportunities are expected to focus on manufacturing, construction, retail, healthcare and social assistance.

South Metropolitan Peel Sub-regional Planning Framework (March 2018)

The South Metropolitan Peel Sub-regional Framework (the Framework) supports Perth and Peel@3.5million by providing an additional level of detail at the sub regional level including more information about the level of expected population growth and employment, servicing, infrastructure and housing demands, and importantly it highlights development opportunities throughout the sub region.

The Structure Plan area is shown in the Framework as 'Industrial Expansion', with the Framework clarifying that the 'Industrial Expansion' category applies to land that is identified for future industrial development (Figure 6: South Metropolitan Peel Sub-regional Framework).

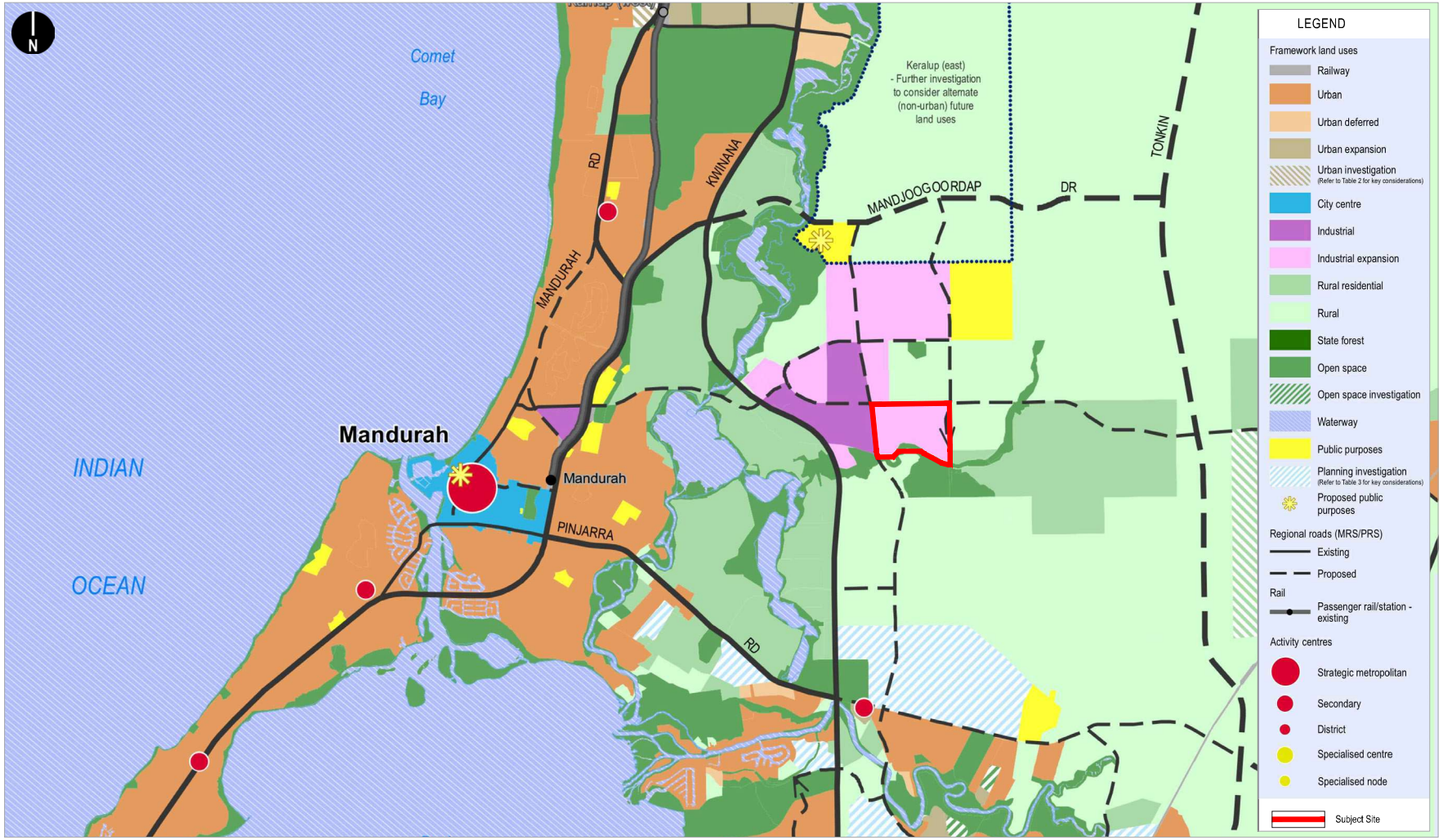

Figure 6 - South Metropolitan Peel Sub-regional Framework

Source: South Metropolitan Peel Sub-Regional Planning Framework March 2008

With regards to Nambeelup itself, the Framework states how this new industrial area will be developed as the Peel Business Park (referred to as the Nambeelup Industrial Area in the DSP, discussed above) with the ongoing development of the business park 'one of the key strategies for achieving a broader and diversified industry base to boost jobs in the Peel region'. The business park will be developed along best practice principles, including taking a comprehensive approach to drainage water and nutrient management in accordance with the Nambeelup District Water Management Strategy

Informed by the Framework, the land has since been zoned for industrial development in the PRS and TPS4, which was supported by the Nambeelup District Water Management Strategy. The Structure Plan will further realise the objectives of the Framework by continuing to expand upon the water management measures established in the DWMS as planning and development progresses.

Historic Strategic Documents

While no longer forming part of the current (operational) planning framework, the Peel Business Park (Nambeelup) has had a long presence in past planning instruments.

Development of the Peel Business Park (Nambeelup Industrial Area) as a key industrial estate had its beginning circa 1997 when it was identified in the WAPC' 'State Planning Strategy' and again in 2004 in 'Network City'.

Three subsequent strategic planning documents were released by the WAPC, each identifying Nambeelup as a key future industrial estate. These are:

- Directions 2031 and Beyond (2010).
- Outer Metropolitan Perth and Peel Sub-regional Strategy (2010).
- Economic and Employment Lands Strategy – Perth and Peel (2012).

These have all culminated in Perth and Peel@3.5million (March 2018) and the Frameworks, as discussed above.

More recently the 'Peel Regional Investment Blueprint – Vision 2050' (released by the Peel Development Commission in 2015) identified the Peel Business Park (Nambeelup) as a key transformational project for the region, followed closely by the approval of the Nambeelup Industrial Area District Structure Plan (as discussed above).

In more recent times, the zoning of the land for industrial development in both region and local planning schemes and now the presence of the Structure Plan will see the planned delivery of this planned industrial estate.

1.3.5 Other Policies

The following section summarises other government policies relevant to the Structure Plan.

WAPC State Planning Policy 2.1 – Peel Harvey Coastal Plain Catchment

The Structure Plan area is located within the Peel-Harvey coastal plain catchment, making SPP 2.1 relevant.

The purpose of SPP2.1 is to improve the social, economic, ecological, aesthetic, and recreational potential of the Peel-Harvey Coastal Plain Catchment and to ensure that changes to land use within the Catchment to the Peel-Harvey Estuarine system are controlled so as to avoid and minimise environmental damage. SPP2.1 was prepared and guided by the *Environmental Protection (Peel Inlet – Harvey Estuary) Policy 1992*, which in turn was prepared under the provisions of the *Environmental Protection Act 1986*, with the objective to reduce the input of nutrients, particularly phosphorus, into the Peel Inlet – Harvey Estuary. The Water Quality Improvement Plan for the Rivers and Estuary of the Peel – Harvey System – Phosphorus Management (WQIP), released by the EPA in November 2008, further detailed strategies for water quality improvement in the region.

SPP 2.1 contains a number of provisions pertinent to the Structure Plan, primarily relating to future proposals making provision for a drainage system which maximises the consumption and retention of drainage on site, with the target to improve local water quality. Proposals to develop land for industry, where the industrial process would create liquid effluent, must include provision for connection to a reticulated sewerage system.

The policy states that subdivision proposals shall make provision for a drainage system which maximises the consumption and retention of drainage on site.

The Structure plan is supported by a Local Water Management Strategy (LWMS) which sets out a comprehensive water management strategy, which in turn follows on from the approved Nambeelup DWMS, including drainage system design features to reduce nutrient export supported by a comprehensive monitoring program to ensure water quality is improved, post-development. Further, an Engineering Servicing Report sets out the wastewater strategy for the site, ensuring future development will be connected to a reticulated sewer system.

WAPC State Planning Policy 2.9: Water Resources

SPP 2.9 provides high-level strategic guidance for policy-making and decision-making where water resources are a relevant consideration, which includes surface and groundwater resources as well as wetland, waterways and estuaries.

The policy goes on to set out a range of measures to ensure development impacts on these water resources are ameliorated.

Water management and the provision of services is discussed in further detail in Sections 2.2 and 3.6 of this report, with the LWMS and Engineering Services Report provided as Appendices 4 and 5 respectively.

Environmentally sensitive wetlands are onsite, with the Structure Plan design carefully encapsuling these within open space. As outlined above, the Local Water Management Plan prepared by JDA Hydrologist goes on to develop a comprehensive strategy to carefully manage and protect these water assets.

WAPC State Planning Policy 3.7: Planning in Bushfire Prone Areas

SPP 3.7 and its Guidelines set out a range of matters that need to be addressed through the planning process to provide an appropriate level of protection of life and property from bushfires.

The Structure Plan is located within a designated Bushfire prone area. Consequently, and in accordance with SPP 3.7, Bushfire Safety Consulting has prepared a Bushfire Management Plan (BMP) in support of the Structure Plan.

The BMP confirms that bushfire risk can be managed and is not an impediment to the development of the site for industrial purposes.

This is discussed in detail in Section 2.6 and 3.4 of this report and the BMP is attached in full as Appendix 2.

WAPC State Planning Policy 4.1: State Industrial Buffer Policy

SPP 4.1 sets out to provide a consistent Statewide approach for the protection and long-term security of industrial zones, transport terminals (including ports) other utilities and special uses. It will also provide for 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.

SPP 4.1 goes on to state that in the case of light/service industry or technology parks the impacts can usually be retained on-site, which is a normal requirement for these types of industry. Building setbacks, in conjunction with landscaping, can be used to create effective buffer areas for reducing impacts to acceptable levels

The Structure Plan is the framework for the Peel Business Park (Nambeelup), with individual (future) proposals assessed at development application phase to ensure appropriate setbacks, buffers and the like are provided.

Shire of Murray Local Planning Policy: Natural Landscape in Urban Areas

The Shire's Local Planning Policy: Natural Landscape in Urban Areas sets out to protect the natural landscape within urban areas, including within Industrial Development zones, by avoiding the unconsidered clearing of native vegetation.

The Structure Plan has been guided by a considerable amount of environmental assessment work, including flora and fauna surveys, which has confirmed the (preceding) comprehensive environmental survey work undertaken as part of the Nambeelup District Structure Plan.

This Structure Plan identifies and retains this significant vegetation within the central open space area and the expansion of the Nambeelup brook reserve, as shown on the Structure Plan map, satisfying this Shire policy.

This environmental assessment work is discussed in further detailed within Sections 2 and 3.2 of this report and the Environmental Assessment report (Coterra Environment), provided in its entirety as Appendix 1.

Shire of Murray Local Planning Policy: Biodiversity Protection

The Shire of Murray's Local Planning Policy: Biodiversity Protection was prepared to support the Shire's relating Local Biodiversity Strategy, which collectively sets out to:

- Protect, maintain and enhance the viability of habitats, ecological communities, flora and fauna, and biodiversity within the Shire.
- Ensure that any land use or development in close proximity to or containing a natural area is compatible with the long-term maintenance and conservation of that natural area, and will not have detrimental impacts on biodiversity.
- Assist in achieving the Specific Biodiversity Feature Targets and Precinct Protection Targets established in the Shire of Murray Local Biodiversity Strategy 2013.

As outlined above, the Structure Plan retains and projects a significant level of high-quality vegetation within a central open space area and the expansion of the Nambeelup brook reserve, all which has been informed by comprehensive flora and fauna surveys. This open space configuration then serves as an 'ecological link' that will be always maintained, allowing for unimpeded fauna movements between these two areas.

This work is discussed in further detailed within Sections 2.3, 2.4 and 3.2 of this report and the Environmental Assessment report (Coterra Environment), provided in its entirety as Appendix 1.

Shire of Murray Local Planning Policy: Water Sensitive Urban Design

The Shire of Murray's Local Planning Policy: Water Sensitive Urban Design seeks to integrate a holistic approach to water management and stormwater drainage, focusing on total water cycle management. The policy seeks to achieve better integration of land and water planning which results in improved water management outcomes for the Peel-Harvey catchment.

A key outcome of the Structure Plan is the retention of the conservation category and resource enhancement wetlands within the site, being retained into a central area of open space that will serve conservation and water quality management opportunities. An Urban Water management Plan will be prepared at the time of subdivision which will refine and confirm stormwater quality modelling set out in the Local Water Management Strategy, once specific road verge maintenance fertilisation information is agreed upon with the Shire of Murray

Stormwater management is discussed in detail within Sections 2.2 and 3.6 of this report, with the Local Water Management Strategy (JDA Hydrologist) establishing management strategies for the treatment of stormwater runoff from within the site, provided as Appendix 4.

1.3.6 Other Structure Plans

Lot 530 Lakes Road, Stake Hill Structure Plan

The Lot 530 Lakes Road, Stake Hill Structure Plan covers the land to the western side of Paterson Road, guiding and coordinating subdivision and development of that land (refer Figure 7: Lot 530 Lakes Road, Stake Hill Structure Plan).

Lot 530 Lakes Road, Stake Hill Structure Plan was endorsed by the WAPC on 16 December 2010 and provides for the development of the subject land for industrial purposes, with a network of supporting drainage areas.

The Structure Plan ensures integration with the planned land use framework and road network of the Lot 530 Lakes Road, Stake Hill Structure Plan, mirroring service commercial activity along Paterson Road as well as consolidating access (to Paterson Road) via three key roundabout intersections.

Lot 600 Lakes Road, Nambeelup Structure Plan

The Lot 600 Lakes Road, Nambeelup Structure Plan covers the land to the north-west of the Structure Plan, similarly guiding subdivision and development of that land (refer Figure 8: Lot 600 Lakes Road, Nambeelup Structure Plan).

Lot 530 Lakes Road, Stake Hill Structure Plan was endorsed by the WAPC on 18 March 2019 and provides for the development of the subject land for industrial purposes, with a focused area of public open space and a number of supporting drainage areas.

While the Structure Plan does not have any direct interface with the Lot 600 Lakes Road, Nambeelup Structure Plan, collectively they share the common goal of the overall integration and development of the Peel Business Park (Nambeelup).

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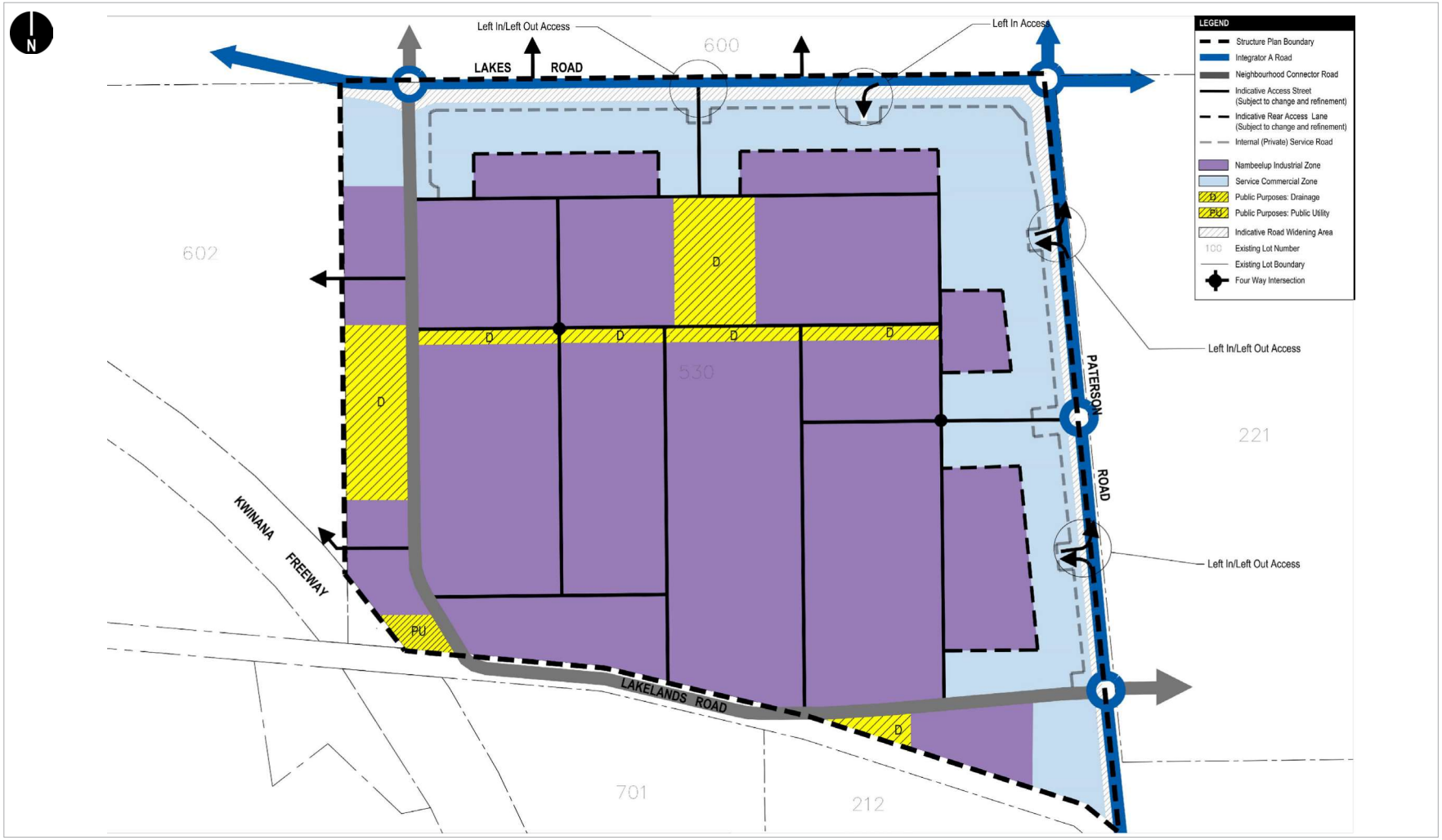

Figure 7 - Lot 530 Lakes Road, Stake Hill Structure Plan

Source: Planning Solutions - Structure Plan Map (Amended) 24.10.2019

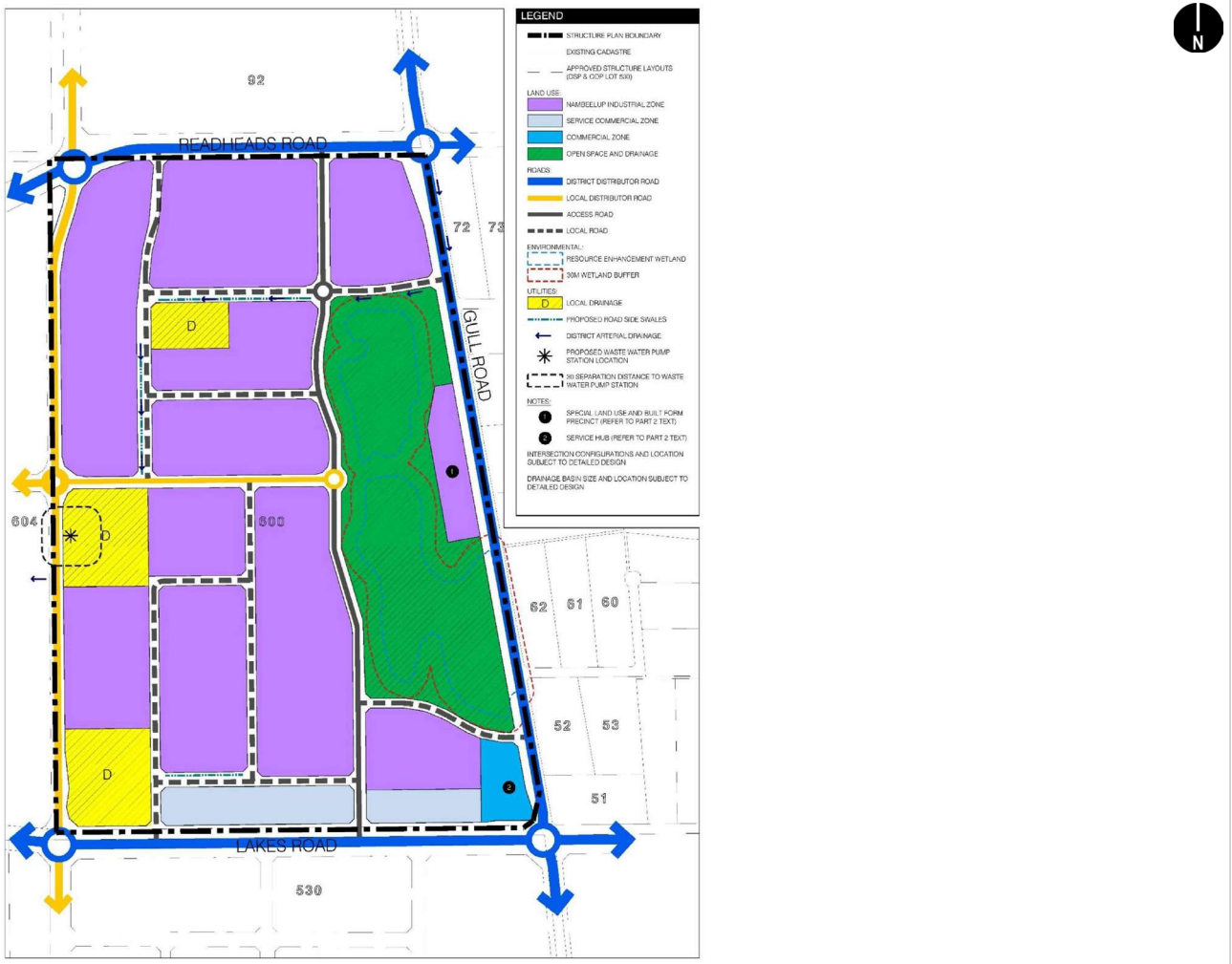

Figure 8 - Lot 600 Lakes Road, Nambeelup Structure Plan

Source: URBIS Local Structure Plan 18.02.2019

2.0 SITE CONDITIONS AND CONSTRAINTS

Coterra Environment has prepared a comprehensive Environmental Assessment Report (EAR) which sets out the site conditions and constraints of the Structure Plan area. The EAR demonstrates that the site is relatively unconstrained and that the environmental factors affecting the site, including groundwater, drainage and bushfire management can all be addressed adequately through the planning approval process and through the application of appropriate land use responses and management practices.

This section summarises the key findings of the EAR, with a complete copy provided as Appendix 1.

2.1 Topography, Landform and Soils

The topography, landform and soils found within the Structure Plan area are suitable for industrial development and pose no barrier to the development of the site.

The topography of the site is generally low lying and features a gentle slope towards the Nambeelup Brook which meanders through the southern boundary of the Structure Plan area and ranges in height from approximately 6m Australian Height Datum (AHD) at Nambeelup Brook up to 15.7m AHD towards the centre of the site.

The environmental geology mapping suggests that the Structure Plan area comprises predominantly of Bassendean Sand and Bassendean Sand over Guildford Formation units. Swamp deposits are associated with the wetlands within the site, while alluvium deposits are associated with Nambeelup Brook.

A site investigation undertaken by Bioscience on Lot 1221 confirmed the presence of Bassendean Sands over Guildford Formation with the sands mostly medium textured, poorly sorted, unrounded white quartz. The depth of the Bassendean Sand ranges from 1m in the lower lying areas to above 10m in elevated areas.

2.1.1 Acid Sulphate Soils

Acid Sulphate Soil (ASS) mapping shows the Structure Plan area as having a moderate to low risk of ASS occurring within 3m of the natural soil surface with some isolated pockets identified as having a high to moderate risk of ASS occurring within 3m of the natural soil surface associated with the wetland and surface water features.

A preliminary ASS assessment was undertaken by Bioscience which confirmed the ASS mapping, showing that there is a low risk of ASS in the sandy soils but that it is likely in some of the wetland soils.

An ASS assessment will be undertaken with management plans to be prepared (if required) in the usual manner prior to any excavation as part of the subdivision and development.

2.1.2 Contamination

The Structure Plan area is not located within and DWER listed contaminated sites with past use of the land for agricultural grazing, not generating a high risk of contamination.

Nonetheless a Preliminary Site Investigation (PSI) was undertaken by Bioscience for Lot 1221 to assess the presence of contamination. The results of the PSI found that there was no evidence to suggest any contamination from past activities. It was noted that a former abattoir located on the neighbouring (eastern) property (Lot 1) included unlined waste disposal ponds but groundwater quality testing on the eastern side of the Structure Plan area found no evidence of contamination.

2.2 Hydrology

The management of ground and surface water is comprehensively addressed within the Local Water Management Strategy (LWMS) prepared by JDA Consulting Hydrologists in support of the Structure Plan.

The LWMS clearly demonstrates that hydrology is not a constraint to industrial development. The existing hydrological conditions of the Structure Plan are summarised below, while the key principles of the LWMS are discussed further in Section 3.6.

2.2.1 Ground Water

A significant amount of knowledge on the local hydrological condition has been obtained through previous work undertaken as part of the Nambeelup Industrial Area District Structure Plan, the associated District Water Management Strategy and the relating amendment to the Peel Region Scheme.

Pre-development groundwater level and quality monitoring was undertaken by way of ten monitoring bores installed within the Structure Plan area and the wider surrounds, finding that groundwater levels range between approximately 15m at the south-eastern corner of the Structure plan area to 6m in the south-western corner (average annual maximum groundwater Levels). The groundwater typically flows in a south-westerly direction towards Nambeelup brook and the Peel Inlet – Harvey Estuary system.

2.2.2 Surface Water

The Structure Plan area itself accommodates a number of former agricultural drains which were extensively installed across the wider Nambeelup locality in order to lower groundwater and improve stock grazing and cropping opportunities.

The drain network within the Structure Plan area connects to the Nambeelup Brook which in turn flows to the Serpentine River, being a tributary of this river. Ultimately the Serpentine River then drains into Black Lake. The result of these drains is that the wetlands and sumplands found within the site are generally in a very degraded condition.

Nambeelup Brook itself is an ephemeral waterway that intersects the Structure plan area along the southern boundary for approximately 350m. Historically Nambeelup Brook has been used for stock watering with unrestricted access (to the brook). Current flood modelling for Nambeelup brook identifies the floodplain only which within the Structure Plan area, ranges from 7.6m AHD to 8.2m AHD.

2.2.3 Wetlands

The Department of Biodiversity, Conservation and Attractions (DBCA) geomorphic wetlands database shows a number of wetlands within the Structure Plan area, but these are primary degraded in condition and mapped as Multiple Use. Multiple Use Wetlands are low management category wetlands with little or no ecological value, making it suitable for development.

There are two Resource Enhancement Wetlands (UFI 4834 and UFI 14438) and two Conservation Category Wetlands (UFI 4835 and UFI 14424) located in the central and easternmost portions of the Structure Plan area. Resource Enhancement Wetlands are wetlands have been modified but still retain some ecological attributes and functions while Conservation Category Wetlands support a high level of wetland attributes and functions.

The Structure Plan has responded to these Resource Enhancement and Conservation Category Wetlands through their retention in open space, discussed further in Section 3.2 of this report.

2.3 Vegetation and Flora

The Structure Plan area is largely cleared of native vegetation, a result of past agricultural pursuits on the land, with the last remnants of native vegetation generally being contained with a central portion of the site or along the Nambeelup Brook. This vegetation will largely be retained and protected within open space, discussed further in section 3.2 of this report.

A detailed fora and vegetation survey was undertaken by Bioscience (2008), followed by an addition study by Focused Vision Consulting (2020) which found:

- Past agricultural pursuits have resulted in the vast majority (over 95%) of the site being recorded as 'Degraded' or lower in condition.
- Of the remaining vegetation, this was found to range from 'Good' to 'Completely Degraded' in condition.
- Four floristic types were found onsite, but all four are categorised as having a conservation value of 'low risk', being well represented within national parks and other native reserves.
- No Threatened or Priority flora species were found due to the degraded nature of the vegetation;
- Vegetation associated with Conservation Category Wetlands (UFI 4835) and vegetation present along portions of the Nambeelup Brook were identified as a Regionally Significant Natural Area; and
- Two patches of vegetation were found to be characteristic of the Banksia Woodland Threatened Ecological Community (TEC). The first patch was identified as being in a 'Degraded' condition and did not meeting the TEC threshold; however, the second patch was deemed to be in a 'Good' condition and did exceed this threshold.

The Structure Plan responds to the findings of these surveys, discussed further in Section 3.2.

2.4 Fauna and Habitat

A Level 1 fauna survey was undertaken by Ecologia (2007) to identify the fauna values, to investigate the potential for the proposed development to impact upon native fauna and fauna habitat. The survey found that due to the site having been largely modified through past agricultural use, there was little native fauna habitat remaining and what remained was deemed as 'Degraded' or lower in condition.

The survey recorded no species of conservation significance within the study area. The survey found that the Southern Brown Bandicoot, the Western Quoll and the Carpet Python may occur in the broader area, and potentially could utilise portions of the Structure Plan.

Likewise, the Baudin's and Carnaby Black Cockatoo may opportunistically use the site for feeding when in the area, attracted to the banksia found onsite, while the Forest Red Tail Cockatoo was observed in the wider area, perching in dead eucalypts.

The four onsite wetlands discussed in Section 2.2.3 will be connected to Nambeelup Brook via a central public open space corridor, providing an 'ecological link'. This 'ecological link' will be always maintained, allowing for unimpeded fauna movements between these two areas.

A search of the DBCA's NautureMap database and the Protected Matters Search Tool found that two conservation species (the Curlew Sandpipe and the Malleefowl) may be found in the wider locality but both these species are mobile in nature with suitable habitat found elsewhere in the region, meaning development of the Structure Plan area is not anticipated to impact upon either species.

Overall the Structure Plan area has a low biodiversity value due to past clearing of native vegetation and the degraded nature of remaining remnant vegetation.

2.5 Heritage

The Department of Planning, Lands and Heritage Aboriginal Heritage Enquiry System identifies no registered sites within the Structure Plan area.

An Aboriginal Site Survey was conducted back in July 2003 (Yates Heritage Consultants), which covered a the wider Nambeelup Industrial Park area. This survey found only that one site fell within the Structure Plan area, namely Nambeelup Brook (DIA 17982); however, since that time the Department of Planning, Lands and Heritage has reviewed and reclassified the status of Nambeelup Brook as a 'Stored data/not a site' meaning it is no longer a registered site.

2.6 Bushfire Management

Bushfire Safety Consulting has prepared a Bushfire Management Plan (BMP) in accordance with WAPC's State Planning Policy 3.7: Planning in Bushfire Prone Areas and its Guidelines.

The BMP demonstrates that bushfire risk can be managed by implementing asset protection zones, through the providing perimeter road reserves around adjacent natural open space areas and ensuring future buildings are adequately setback.

The manner in which the Structure Plan addresses bushfire risk is discussed further in Section 3.4 of this report with a copy of the BMP included as Appendix 2.

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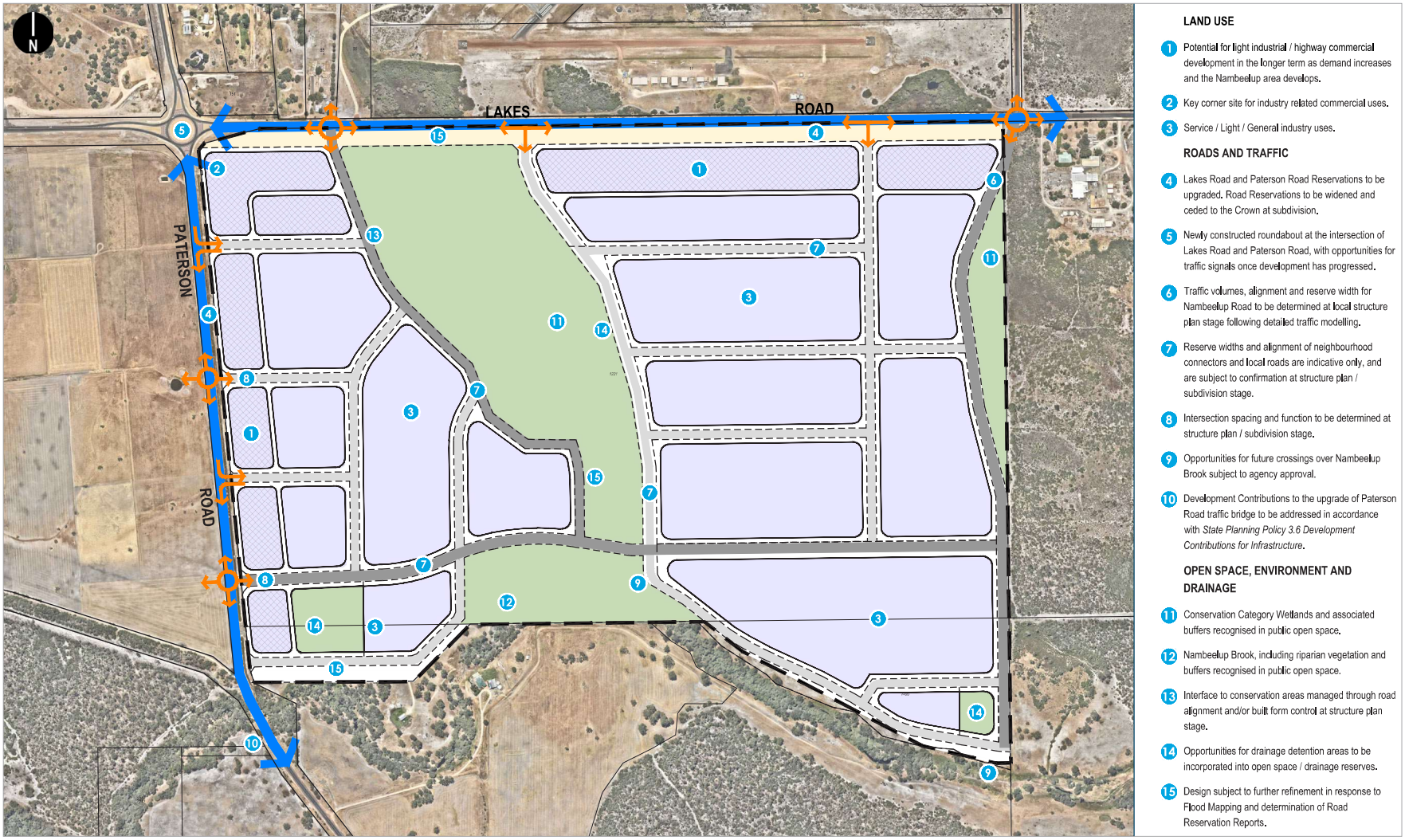

Figure 9 - Development Concept Plan
Source: Nearmap

3.0 THE STRUCTURE PLAN

The Structure Plan establishes a planning framework for a robust and responsive industrial estate which respects the natural amenity of its surrounds and neighbouring land uses (both existing and planned), all while providing adequate flexibility to respond to future market needs. This Structure Plan delivers upon the vision and objectives of the Nambeelup Industrial Area District Structure Plan (DSP).

A Development Concept Plan has been prepared for the site to demonstrate how development could occur based on the Structure Plan principles and requirements (Figure 9: Development Concept Plan). It is important to note that the Development Concept Plan represents one way development could occur and the concept will be refined at the time of subdivision and development.

The key principles of the Development Concept Plan are to:

- Provide a land use response that recognises the strategic location and function of the Structure Plan area within the broader Nambeelup Industrial Area.
- Create an opportunity to accommodate larger scale industrial uses within the site that encourages job creation and helps facilitate the broader Nambeelup Industrial Area developing into an industrial estate of regional significance.
- Sleeve these traditional industrial land uses with a strip of non-retail commercial land uses and activities that face on to Lake and Paterson Roads, capitalising on the greater exposure to passing custom.
- Deliver a permeable, interconnected road network that supports future industrial activities and businesses.
- Acknowledge and embrace the wetlands and best quality remnant vegetation that is identified within the site through retention within public open space areas, that also provide an integrated drainage solution. The rehabilitation of the wetland which forms an ecological link to Nambeelup Brook to the south will improve the ecological value of the site.
- Create an appropriate interface to the Nambeelup Brook, ensuring the provision of adequate bushfire separation, controlled access, and protection to this water feature.
- Enable the timely extension of necessary service infrastructure to support staged industrial development of this scale.
- Address the vision and objectives of the Nambeelup Industrial Area District Structure Plan.

Based on the above principles, the Structure Plan will enable the development of:

- Approximately 87ha of ‘Nambeelup Industrial’ zoned land that can accommodate a broad range of more ‘traditional’ industrial land uses.
- A further 20ha (approx.) of ‘Service Commercial’ zoned land that fronts to Lakes Road and Paterson Road, supporting a range of non-retail commercial businesses.
- An integrated internal road network that connects seamlessly with the wider network, that is fit for purpose by supporting the safe movement of larger vehicles expected as part of future development.

- A managed interface to the identified wetlands within the site and the Nambeelup Brook, ensuring the provision of adequate buffers, management and controlled access.
- A series of landscaped detention basins (reserves) and bio-retention swales that are designed and landscaped to treat stormwater before discharging into the central open space and Nambeelup Brook. These basins are landscaped spaces, specifically designed and sized to meet drainage requirements, whilst also ensuring ongoing maintenance is minimal and of a low bushfire fuel threat.
- The management and conveyance of development drainage in a manner is in accordance with the principles of water sensitive urban design.
- The coordinated provision of essential infrastructure which is made easier by the largely consolidated ownership within the Structure Plan area.

3.1 Land Use and Zoning

Ideally located to support a diverse range of industrial and commercial uses, the Structure Plan provides for approximately 87 hectares of 'Nambeelup Industrial' zoned land that can support a variety of more general industrial land uses with a focus on innovative and sustainable rural related industries and associated land uses, including transport and logistics, along with supporting research, training and development with an emphasis on primary industries.

Another 20 hectares (approx.) of 'Service Commercial' zoned land is restricted to Lakes Road and Paterson Road, capitalising on the high visibility offered by these two key roads, allowing for range of non-retail commercial land use and activities.

This zoning is consistent with the intent of the DSP, surrounding structure plans and will allow for a wide range of industrial development without adversely impacting on surrounding land uses. It is noted that the Service Commercial' zoned land extends slightly eastwards from that shown on the Nambeelup District Structure Plan; however, this is considered a minor deviation and allows for all 'traditional' industrial activities to be wholly sleeved within the estate.

Land use permissibility for both zones will be in accordance with the Shire of Murray Local Planning Scheme 4.

Industrial land uses within any given industrial estate are diverse and have differing requirements with respect to lot size, configuration and location, with the Structure Plan offering adequate flexibility to be able to respond to these future industrial and commercial land use demands.

3.2 Public Open Space and Drainage Reserves

The Structure Plan achieves a balance between delivering an industrial estate of regional significance and responding to identified environmental attributes within the site, resulting in more than 38 hectares of public open space being provided which equates to approximately 19% of the total site area.

The Structure Plan design follows the strategy established by the DSP which creates a number of ecological links throughout the wider Nambeelup Industrial Area, most pertinently for this site being the central open space that connects through to the Nambeelup Brook to the south. As development to the north progresses, this ecological link will be extended northwards to include remnant vegetation on the Murrayfield Airport.

A central public open space largely mirrors that shown in DSP, designed to fully retain the four identified Conservation Category and Resource Enhancement Wetlands, as well largely accommodating their necessary buffers. This open space also retains the high-quality Banksia Woodland Threatened Ecological Community identified in recent vegetation survey work. This central public open space will also serve an important drainage function, to be discussed further in Section 3.6 of this report.

The Structure Plan similarly provides a clear separation to the Nambeelup Brook and the abutting industrial development. While falling outside its bounds, the Structure Plan area delivers an additional land interface to the Brook ensuring that the floodplain is accommodated within a complete (50m) foreshore reserve.

In accordance with the DSP provisions, a Public Open Space Management Plan will be prepared and submitted at the time of subdivision, which will establish ongoing vegetation management strategies, access control, dieback control and management, fire management and interface management for these spaces, to be approved by the Shire of Murray. All public open space areas will be left in their natural form, except for some form of path network to be developed within, with the Public Open Space Management Plan identifying the alignment of this path network and any areas for possible revegetation work.

Two local drainage reserves are shown on the Structure Plan, being in catchment low points to provide for stormwater treatment prior to being discharged into the Nambeelup Brook foreshore reserve. These reserves are sized according to their drainage requirements and given the purpose will be created as 'Public Purpose Drainage' (local) reserves. While these drainage reserves will be landscaped using native (low maintenance) vegetation, this will be undertaken in a manner so as to not be identified as a future bushfire risk. Landscaping plans for these drainage reserves will be prepared on the advice of the Shire of Murray.

3.3 Built Form and Development Standards

The Structure Plan acknowledges the need to establish a framework that achieves built form outcomes that match amenity expectations within industrial areas without compromising the efficient use of land by imposing unnecessary development controls.

Development control will largely fall to the Shire of Murray Local Planning Scheme 4 provisions and any relevant local planning policies.

Local Development Plans (LDPs) will be required where specific built form outcomes will be needed to deliver a contemporary built form response. These LDPs will be required as a condition of subdivision approval and be approved by the Shire of Murray.

Lots abutting areas of Open Space / Drainage Reserves

Typically, the interface to any open space area at the time of subdivision will be via roads, however, there are instances where direct lot frontage to drainage reserves is envisaged and an appropriate design response to increase surveillance is appropriate.

To ensure these spaces are not compromised subsequent subdivision design and engineering detail will ensure that the adjacent industrial lots are elevated a minimum of 500mm above the drainage reserve ground level to create a visible separation between the private lot and public reserve.

LDPs will need to be prepared to control built form, stipulating a minimum setback to the reserve, along with visually permeable fencing to promote surveillance.

Lots fronting Lakes Road and Paterson Road

Lakes Road abutting the Structure plan area is classified in the network as a Regional Distributor Road, while Paterson Road is identified as a Local Distributor Road, with both roads forecast to carry traffic volumes that are not conducive to direct access from individual lots (discussed further in Section 3.5 of this report).

To ensure traffic movements along these key roads are not disrupted or road safety compromised, LDPs will be prepared for all 'Service Commercial' lots that face onto either of these roads, to mandate a vehicle access strategy that consolidates access points and circulation across these sites.

This will ensure that there will be no direct access to Lakes Road and Paterson Road from private 'Service Commercial' lots.

Design Guidelines

In addition to the requirements of any local planning policy or LDP, the proponent may choose to implement some basic estate-wide design guidelines at subdivision/development stage to ensure a standard of visual amenity and uniform patterns of development. Design guidelines could potentially address detailed design matters such as:

- Fencing materials and colours;
- Façade treatments and colour schedules;
- Onsite landscaping characteristics; and
- Signage locations and sizes.

It is important to note that these guidelines would be separate from the statutory planning and building approvals processes and would be enforced by the developer as opposed to the Shire of Murray, through contracts of sale and other mechanisms.

3.4 Bushfire Management

In accordance with the WAPC's 'State Planning Policy 3.7: Planning in Bushfire Prone Areas' and 'Planning for Bush Fire Protection Guidelines' a Bushfire Management Plan (BMP) has been prepared by Bushfire Safety Consulting part of the Structure Plan. The BMP confirms that the Structure Plan provides a design response and the planning framework that satisfactorily addresses risk from bushfire.

The BMP includes a detailed BAL Contour Map showing that bushfire prone vegetation (post-development) will be generally restricted to the extremities of the Structure Plan area, along with the central open space corridor.

The BMP goes on to set out the necessary separation distances from these identified bushfire risks, in order to meet a Bushfire Attack Level (BAL) of BAL-29 or less.

The Structure Plan provides a design response to provide the required separation between development and the identified bushfire risk using (industrial width) public streets, with all lots to have two access ways to the surrounding road network. Mandatory building setbacks will be required for lots BAL affected. The final building setbacks for individual lots will be determined at subdivision and again at development application phases where an updated BMP or BAL Contour Plan will be required.

The implementation of low threat staging buffers which will entail the temporary quarantining of lots or the clearing of no less than 100m of vegetation about individual development stages to ensure a BAL rating of BAL-Low.

The BMP notes that the Structure Plan itself does not propose any vulnerable or high-risk land uses; however, if such future proposals eventuate these will need to demonstrate further bushfire risk mitigation at the time of development application.

This all demonstrates that bushfire risk can be satisfactorily and is not an obstacle to the development for the site.

The Bushfire Management Plan prepared by Bushfire Safety Consulting is provided as Appendix 2.

3.5 Transport Network

Transcore traffic engineers have prepared a comprehensive Transport Impact Assessment which forecasts traffic volumes and sets out a recommended road network hierarchy for the Structure Plan that will accommodate expected traffic flows.

The following section discusses the key elements of the Transport Impact Assessment, including existing and planned movement network, road hierarchy classification and an overview of the cyclist and pedestrian network.

The Transport Impact Assessment prepared by Transcore can be found in its entirety as Appendix 3.

3.5.1 Existing Transport Network

The Structure Plan is supported by a regional road network that allows for convenient access to and from the site. Key aspects of this existing road network surrounding the Structure Plan are:

- **Lakes Road** abuts the northern edge of the Structure Plan and is classified in the network as a Regional Distributor Road, connecting Kwinana Freeway to the west with North Dandalup to the east. Lakes Road is constructed as a single carriageway standard road with a posted speed limit of 80km/h and 100km/h along the frontage of the Structure plan area, with intersections with Paterson Road/ Gull Road. Main Roads WA data (dated 2021/2022) shows Lakes Road (east of the Kwinana freeway) carrying a daily average of 3570 vehicles per day (Monday to Friday).
- **Paterson Road** abuts the western edge of the Structure Plan and is identified as a Local Distributor Road by Main Roads. It is constructed as a single carriageway rural road (two lanes each way) with a posted speed limit of 100km/h. Paterson Road has a current vehicle capacity of 1100 vehicles per day.

The Lakes Road/Paterson Road/Gull Road intersection operates as a roundabout (construction completed late 2021), one lane each direction.

Lakes Road (adjacent to the Structure Plan area) forms part of the Restricted Access Vehicles (RAV) Tandem Drive Network 4 and Tri Drive Network 1, while Gull Road is classified as RAV Tandem Drive Network 3 and Tri Drive Network 1.

Paterson Road is not currently in the RAV network and an application will be required to Main Roads WA to include the section of Paterson Road (abutting the Structure Plan area) to be included in the RAV network, to accommodate the relevant truck circulation within the Structure Plan area. The extent and scope of works that would be required to meet RAV Network requirements would be determined by Main Roads, once an application is made. Once RAV Network requirements are satisfied with appropriate RAV permits issued by Main Roads, Paterson Road will be able to accommodate heavy vehicle combinations up to 27.5m in length (B-double trucks).

There are currently no public transport services or pedestrian and cyclist facilities to or within the Nambeelup area, including the Structure Plan area.

3.5.2 Proposed Transport Network

The Transport Impact Assessment prepared by Transcore comprehensively addresses traffic movement considerations within the Structure Plan area.

Road Network

The planned road network shown on the Development Concept Plan provides a robust and permeable layout throughout the Structure Plan area, with strong, direct linkages in both an east-west direction and in a north-south direction, along with providing excellent internal circulation.

The road network reflects the principles and standards of Development Control Policy 4.1: Industrial Subdivision, recognising the need to provide for safe and efficient traffic movement that will be industrial in nature.

Transport modelling and analysis indicates that by 2050 (assuming full development of the wider Nambeelup District Structure plan area):

- Lakes Road to the west of the Lakes Road/Paterson Road/Gull Road roundabout will carry 14,000 vehicles per day (vpd).
- Lakes Road to the east of the Lakes Road/Paterson Road/Gull Road roundabout will carry 6,000 vpd.
- Southern portion of Paterson Road (portion abutting the western edge of Structure Plan area) will carry 9,000 vpd, increasing to 10,500vpd along the northern portion of the Structure Plan area, towards Lakes Road.
- Nambeelup Road (within the Structure Plan area) will carry only 2,000vpd.

As a consequence of this transport modelling and analysis, the TIA has established a recommended road hierarchy for the movement network planned for the area (year 2050) and the external connections to the existing network. The road network has been planned and modelled on known and forecast traffic volumes and will be refined further at the time of subdivision to relevant Shire of Murray standards.

The key aspects of the planned road network (ultimate development, 2050) are as follows:

- **Lakes Road**, east of the Lakes Road/Paterson Road/Gull Road, to be categorised as an Integrator A standard in accordance with the Nambeelup District Structure Plan. Key intersection treatments to be constructed at Stage 1 of subdivision to manage traffic circulation and safety. The ultimate road reserve is to be created at stage 1 of subdivision and fully earth worked and filled to subgrade level.

- **Lakes Road,** west of the Lakes Road/Paterson Road/Gull Road, to be categorised as an Integrator A Road, constructed with four traffic lanes and with a road reserve width of 47m to 50m.
- **Paterson Road** has an existing reserve width of 34.5metres and requires road reserve widening on western boundary to ultimate width. Paterson Road will be staged to achieve ultimate Integrator A standard in accordance with the Nambeelup District Structure Plan. Key intersection treatments to be constructed at stage 1 of subdivision to manage traffic circulation and safety. The ultimate road reserve is to be created at stage 1 of subdivision and fully earth worked and filled to subgrade level.
- **Nambeelup Road** (within the Structure Plan area) to be categorised as a neighbourhood Connector, constructed with two traffic lane with a road reserve width of 20 to 25m.
- All other internal roads within the Structure Plan area will have a minimum road reserve width of 20m with a minimum carriageway of 10m, in line with WAPC Development Control Policy 4.2: Industrial Subdivision requirements, providing a safe and efficient road network that will be industrial in nature. For heavily trafficked/major through routes, a minimum road reserve width of 25 metres may be required.

This is sufficient to accommodate two 27.5m length vehicle (B-double truck) to pass each other. Truncations of internal roads will need to accommodate the turn paths of the relevant RAV vehicle which would use the roads. The truncation specifications will be reviewed during the detailed design stages of the development with a Road Safety Design Audit to ensure road geometry and layout are to standard prior to subdivision approval.

The Structure Plan will connect to the surrounding road network (both existing and planned) by way of the following:

- Lakes Road/Paterson Road/Gull Road roundabout to be upgraded to 4 lanes by the year 2050.
- Two proposed 4-way roundabouts along Paterson Road to the south of the Lakes Road/Paterson Road/Gull Road roundabout, established through collective inputs from the landowners on both sides of Paterson Road, ensuring a consolidated access strategy to this key road.
- Subject to final outcomes of the independent Road Safety Design Audits, a maximum of three left in/left out only intersections along this stretch of Paterson Road, providing for further access opportunities.
- Two 4-way roundabout along Lakes Road (abutting the northern edge of the Structure Plan), again ensuring a rationalised access strategy to this road, cognisant of future road connections from the north.
- Two priority-controlled T-intersections (give way), allowing for further access and circulation to and from the Structure Plan area.

The layout and appropriate length of required turn lanes associated with the left in/left out and priority-controlled intersections will be investigated during more detailed design phases of development.

Nambeelup Road Extension

The Nambeelup Industrial Area District Structure Plan outlined that Nambeelup Road should be extended from the north, over Nambeelup Brook providing a future connection to Keralup (to the north). This portion of Nambeelup Road was identified as a four-lane divided carriageway; however, critically the District Structure Plan did establish that this connection and its configuration needed to be confirmed by more detailed and contemporary traffic modelling as part of (local) structure planning.

The TIA has subsequently identified that while the Nambeelup Road extension may be required, given recent modelling and the significant reduction in the planned Keralup project to the north, this road will ever only carry a maximum of 2,000 vehicles per day.

As a consequence, the Structure Plan does not prejudice this possible future extension, providing for a road reserve of road reserve width of 20 to 25m that can be provided at a later date, should the need eventuate.

Pedestrian & Cyclist Facilities

The Structure Plan will deliver a safe and legible pedestrian and cycle movement network, expanding upon connections planned by the Nambeelup District Structure Plan (DSP).

The DSP provides for a Strategic Bike Route to be delivered along both Lakes Roads and Paterson Road, with a Local Bike Route network to be provided along key internal roads within the Structure Plan area, including the Nambeelup Road extension.

These key principles and the final location of these bike routes and associated pedestrian pathways will be determined in consultation with the Shire of Murray as part of the detailed engineering stage following subdivision approval.

Public Transport

Development of the wider Nambeelup District Structure plan area, which includes the subject Structure Plan, will in part provide the catalyst for a future public transport service, as demand grows. No services currently provided or planned for within the locality.

3.5.3 Analysis of the Transport Network

Transcore have undertaken comprehensive traffic modelling for the movement network proposed by the Structure Plan. It demonstrates that the proposed network and associated reserve widths have the capacity to accommodate expected traffic volumes. Traffic modelling undertaken has incorporated forecast volumes up to the year 2050, which is the year that full development has been assumed via the Nambeelup District Structure Plan. This ensures a transparent and robust model.

Modelling was undertaken in accordance with the Roads and Traffic Authority ‘Guide to Traffic Generating Development’ and informed sourced by Transcore for similar industrial developments.

All vehicle movements fall within the acceptable limits for the respective road categories proposed by the Structure Plan, with the vast majority of internal roads carrying less than 2,000vpd at full development.

External Roundabouts and Intersections

A capability assessment (SIDRA software) was carried by Transcore for the roundabouts located along Lakes and Paterson Roads as well as the western priority-controlled T-intersection Lakes Road.

This analysis found that the roundabouts and intersection will operate satisfactorily during both AM and PM peak hour period at ultimate development (to the year 2050). The intersection will have significant spare capacity, with minimal queues and delays.

3.6 Water Management

The Structure Plan design incorporates the principles of best practice urban water management principles by integrating stormwater detention and infiltration within areas of open space and the wetland for larger storm events.

A Local Water Management Strategy (LWMS) has been prepared by JDA Consulting Hydrologists in support of the Structure Plan, in accordance with the principles and objectives of WAPC's Better Urban Water Management Guidelines and the approved Nambeelup Industrial Area District Water Management Strategy (JDA Hydrologists, 2016) which was prepared in support of the Nambeelup Industrial Area District Structure Plan and subsequent rezoning of the land in the Peel Region Scheme.

A key focus of the Nambeelup Industrial Area DWMS was to show how future industrial development was appropriate and that the future development was able to support appropriate water sensitive design and best practice water management outcomes for the area. The Nambeelup Industrial Area DWMS went on to set out the broad principles the management of ground and surface water, as well as establishing water quality management strategies.

The JDA LWMS follows the principle of and is consistent with the approved Nambeelup Industrial Area DWMS and establishes key principles for the management of stormwater runoff and groundwater quality, implementation of the LWMS will be through the development of subsequent Urban Water Management Plans (UWMP) which will be prepared at the time of subdivision.

The JDA Local Water Management Strategy is provided in its entirety as Appendix 4.

3.6.1 Stormwater Management

Stormwater management will be based around current water sensitive design principles and best management practices to effectively manage water quality and quantity from both minor and major storm events. The LWMS refines the stormwater strategy set out in the approved Nambeelup Industrial Area DWMS which was prepared as part of the Nambeelup Industrial Area District Structure Plan.

The key objectives of the drainage system will be:

- Minimise changes to the existing hydrology in the locality.
- Improve water quality.
- Manage and restore waterways and wetlands.
- Manage flooding and inundation risk.
- Ensure the efficient use or re-use of water resources.
- Improve water quality.

Small Event Management

For stormwater from the first 15mm of rainfall (generally equating to the 1 year ARI event or small event):

- Stormwater generated from within industrial lots will be retained and infiltrated onsite via soakwells or other underground storage devices, rainwater tanks or on site swales. Underground storage units are to be interconnected within lots and be restricted to a maximum depth of 600mm to provide clearance to the Controlled Groundwater Level.
- Runoff from roads will be discharged within bio-retention areas, generally located in areas of open space except for a small catchment which will discharge to the adjacent Paterson Drain.
- Bio-retention areas will be underlain with 300mm of thick amended soil media and planted with suitable species, providing for water quality treatment. All bio-retention areas will be set a minimum of 300mm above the controlled groundwater level.

Further information should be provided at UWMP stage on:

- the proposed earthworks for the site,
- proposed lot size,
- lot connection to road drainage network,
- onsite landscape swales for first flush treatment of paved surfaces as % area of the site.

Minor Drainage

For stormwater over and above the first 15mm event (minor events) up to the 10% Annual Exceedance Probability (AEP) event (generally equating to the 5 year ARI):

- Stormwater flows will be conveyed via a road drainage piped network to downstream drainage areas.
- Runoff generated from within industrial lots in excess of onsite soakwells or other underground storage devices capacity will flow either overland or via lot connections into the road drainage network.
- Drainage areas in catchment low points will provide for stormwater runoff detention prior to outflow into the Nambeelup Brook foreshore reserve, the central open space and Paterson Drain.

Major Drainage

For stormwater over and above the 10% AEP event to the 1% AEP event (100 year ARI):

- Management will include detention of stormwater runoff in drainage areas with outflows into the Nambeelup Brook foreshore reserve, the central open space and Paterson Drain as described for Minor Drainage event (above).
- Once the capacity of the road drainage (piped) network is reached, stormwater will be conveyed safely overland via road reserves, bypassing minor drainage structure, to the drainage areas located at catchment lows.
- Habitable building floor areas will be provided with at least 300mm clearance from the flood management areas and 500mm clearance from Nambeelup Brook.

3.6.2 Groundwater Management

Groundwater management for the Structure Plan area is consistent with the design criteria set out in the Nambeelup Industrial Area DWMS, with key objectives being:

- Maintain the groundwater levels to protect infrastructure and assets from flooding and damage.
- Maintain the groundwater regime for the protection of groundwater-dependant ecosystems.
- Safeguard the quality and availability of groundwater resources.
- Improve water quality by reducing nutrients infiltrating to groundwater.
- Improve water quality by reducing nutrients infiltrating to groundwater.

In order to achieve these objectives, minimum separation between building floor levels of future development and groundwater will be achieved by a combination of subsoil drainage, fill levels for separation to groundwater to protect against any post-development groundwater rise. Finished levels and fill requirements, as a detailed design issue, will be addressed as part of the engineering design and UWMP stage.

The use of suitable foundations for the separation to groundwater will also be a requirement of provide further protection for future buildings.

3.6.3 Implementation and Monitoring Program

The LWMS sets the overall water management strategy for development within the Structure Plan area.

Initially it will be the responsibility of the developer to construct and maintain the stormwater drainage network in accordance with UWMP(s) that will be prepared at subdivision stage, but longer-term maintenance will revert to the Shire of Murray.

Post-development monitoring of water quality of both subsoils and/or surface outflows will operate for a minimum of three years, to compare with pre-development surface and ground water quality. Samples will be analysed by a NATA-accredited laboratory for total suspended solids, dissolved nutrients, heavy metals and hydrocarbons to ensure water quality is improved (post-development) and development does not adversely affect the Peel Inlet – Harvey Estuary.

Ecological monitoring will form a component of the Public Open Space Management Plan and the Foreshore Management Plan that are to be prepared at the time of subdivision in relation to revegetation works proposed associated with onsite wetlands and Nambeelup Brook. The specific ecological monitoring details will be outlined within the management plans which are to be approved by the Shire of Murray.

The permeability performance of the amended soil media in the bio-retention areas is to be documented at the time of UWMP.

3.7 Servicing and Staging

The Structure Plan is capable of being provided with essential services with the following section summarising the engineering considerations set out in the Engineering Servicing Report prepared by Cossill & Webley Consulting Engineers. A copy of the Engineering Servicing Report is provided as Appendix 5.

3.7.1 Water

The Structure Plan can be provided with reticulated water, being located within the Water Corporation's Tamworth water supply zone.

A DN250mm water reticulation main has been extended from Bortolo Drive, Mandurah to the Lot 600 Lakes Road Nambeelup Structure Plan area which has capacity to service initial development of the site. Another DN250mm water reticulation main is also located to the west of the Structure Plan area, which may provide for further connection opportunities; however, the capacity of this main is unclear at this time and may be limited. This DN250mm pipe will ultimately be upgraded by the Water Corporation to a DN375mm pipe should the capacity of the DN250mm pipe be reached.

3.7.2 Power

Existing Western Power overhead infrastructure is located around the Structure Plan area which has the capacity to service development.

There is a 132kV transmission line located in the nearby Lakelands Road which traverses between the Pinjarra, Mandurah and Meadow Springs Substation, which may be utilises subject to a substation being built within the Nambeelup locality. Wester Power has advised that there is sufficient power within the Pinjarra Substation to provide for the short to medium term power requirements for the Nambeelup Industrial Area, depending on development rates.

As part of Royalties for Regions funding, two 22kV underground feeder cables were extended from the Pinjarra Substation, along Paterson Road up to Lakes Road which have some capacity to service the Structure plan area, depending on user demand. If the capacity of these feeders is reached, additional feeders may need to be extended.

There are twin 330kV overhead power lines to the east of the Structure Plan area which connect the Muja Power Station to the Southern terminal Transmission Lines however these are not available for direct feeds into Nambeelup.

Additional to Western Power infrastructure, a microgrid system is operating from the Lot 600 Lakes Road Nambeeliup Structure Plan area (to the north-west), generating power via solar with battery storage, with additional power drawn from the grid if and when required. Peel Renewable Energy is the managing authority for this infrastructure, which may be expanded to include servicing of other developments within the Nambeelup Business Area.

3.7.3 Wastewater

The Structure Plan is accounted for in wastewater planning undertaken by the Water Corporation, and includes the construction of a number of pump station and pressure mains.

Current planning indicates that a north-western portion of the site may be serviced by the proposed Amarillo South Pump Station No. 197-01 which is located to the north-west of the Structure Plan area, within the Lot 600 Lakes Road Nambeeliup Structure Plan area. This pump station is anticipated to be constructed and commissioned in 2022.

The balance of the site will be split into two separate catchments, generally following the central open space area. Wastewater from the western catchment (of the central open space) will gravitate towards the future Amarillio South Pump Station B, located westwards near the Kwinana Freeway. This in turn will pump to the Amarillo South Pump Station No. 197-01, discussed above.

The eastern catchment is the proposed to gravitate to the future Amarillio South Pump Station C, to be located within the Structure Plan area, which in turn will pump to the gravity mains located within Lakes Road.

The final location and catchments of these pump stations will be determined as planning and development of the broader Nambeelup Industrial Area advances. All these pump stations (within the Nambeelup Industrial Area) ultimately discharge wastewater to the Gordon Road Wastewater Treatment Plant to the east. Depending on timing of development, temporary or interim pump stations and associated pressure mains may be required.

3.7.4 Telecommunications

The current footprint of the NBN Co. includes Fixed Wireless services over the majority of the Structure Plan area, with cabling backhauled into the Peel Business Park as part of Royalties for Regions funding.

This infrastructure can be utilised top provide telecommunications infrastructure to the Structure Plan.

3.7.5 Gas

There are regional gas pipelines in the vicinity of the Structure Plan area, including the Dampier to Bunbury Natural Gas Pipeline to the east and the Dongara to Pinjarra pipeline to the north-east. While these pipelines are not suitable for direction connection, ATCO Gas has constructed a trunk main that connects to the Dampier to Bunbury Natural Gas Pipeline, located to the north of the Structure Plan area.

As part of the Royalties for Regions funding, a High Pressure Regulator off this trunk main has been constructed and a gas main extended along Gull Road to the intersection of Lakes Road from which a further extension can be utilised to provide the Structure Plan area with a source of reticulated gas.

3.7.6 Staging

It is anticipated that the Structure Plan will be implemented to match market demand. Initially development is anticipated to focus about the Lakes and Paterson Roads roundabout to facilitate the construction of the estate entry point off this key (high exposure) point.

Development will then typically proceed in a fashion that provides for a progressive and logical extension to the estate and is necessary services. A staging plan will be provided at the time of subdivision to outline proposed and forecast infrastructure development to ensure essential infrastructure services are constructed satisfactory and safely.

3.8 Developer Contributions

The Structure Plan is not currently subject to development contributions prepared pursuant to Section 6.14.1 and Schedule 13 Development Contribution Plans of the Shire of Murray Local Planning Scheme 4, as a result of significant infrastructure funding provided by the Royalties for Regions scheme.

In the event that the Shire of Murray determine that a development contributions scheme is required, its preparation will need to be undertaken in accordance with the provisions set out in Local Planning Scheme 4 and State Planning Policy 3.6: Infrastructure Contributions.

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