



# Attachment 2

Civil Servicing Report





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# SERVICING REPORT

## Cell 8 East Wanneroo Development

JDS222157 Rev 1 January 2024

Prepared for:  
**Qube Property Group**



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DOCUMENT REVIEW				
Revision	Date Issued	Issue Type	Written By	Approved By
Rev A	14/08/23	Draft for Review	JDS	SF
Rev 0	4/12/23	Final Issue	JDS	SF
Rev 1	29/1/24	Final Issue – minor text amendments	JDS	SF

## 1 Executive Summary

JDSi Consulting Engineers has been engaged by Qube Property Group to provide an Engineering Servicing Report to support the East Wanneroo Precinct 8 Local Structure Plan and associated 'Lifting of Urban Deferment' under the Metropolitan Region Scheme (MRS), herein referred to as the Site. This report addresses the civil and services engineering elements relating to the proposed development. It is specifically targeted at the external land development and service authority requirements to facilitate the proposed development.

As further detailed in the report there are several recommendations for further action to progress the development, with regards to the civil infrastructure requirements. These are summarised below:

- Complete a detailed assessment to address all the key requirements of District Structure plan (DSP) into the desired development.
- Confirm final Water Corporation planning with regards to water supply & wastewater collection for the development.
- Check and confirm with NBN to confirm options for communications supply to the site.
- Confirm the western power requirements with regards to power supply for the development.

The above summary of recommendations is not exhaustive as there will be numerous actions required to achieve an approved design that meets industry and regulatory requirements for quality, sustainability and safety.

## 2 Key Objectives

The key objectives of this report are to:

- Review and analyse existing documentation associated with the site.
- Summarise any existing infrastructure assets within the vicinity of the site, including roads, drainage, and utility services.
- Provide commentary on any clearing and earthworks required within the site.
- Provide commentary on potential road upgrades and improvements required to facilitate access to the site.
- Summarise requirements for the design and construction of new public roads proposed as part of the development.
- Provide commentary on the overall stormwater drainage strategy for the proposed development.
- Summarise Water Corporation's requirements for sewer and water reticulation and supply to the site.
- Summarise Western Power's requirements for electrical reticulation and supply to the site.
- Summarise servicing and supply requirement for telecommunication and gas reticulation to the site.
- Provide commentary on any potential major infrastructure upgrades required to accommodate the proposed development.
- Summarise key engineering and servicing constraints and opportunities associated with the proposed development.

## 3 Introduction

Qube Property Group (the Client) have requested JDSi to provide an Engineering Servicing Report to support the East Wanneroo Precinct 8 Local Structure Plan and associated 'Lifting of Urban Deferment' under the Metropolitan Region Scheme (MRS)" (refer Figure 1 below). For the purposes of this report the site includes a count of 40 lots owned by different landowners, Western Australia Planning Commission and State of Western Australia.

Based on preliminary information provided by the Client, the Precinct 8 Structure plan (included in **Appendix A**) and corresponding Master plan, the development incorporates following yields.

- Approximately 2,500 dwellings
- 264 Ha of total Area
- Primary School and Public Open Space (POS)

This report covers the engineering infrastructure requirements to service the proposed development. JDSi have considered earthworks, roads, stormwater drainage, wastewater, potable water, and utility services with a particular emphasis on the existing service capacity and the potential infrastructure upgrades required to support the proposed development.

The report has been based on a desktop study of existing services information, aerial imagery, preliminary advice from the various service authorities, industry standards and policies and JDSi's in-house experience related to other developments in the area. The information is current as of August 2023 and may be subject to change as development progresses in the area.

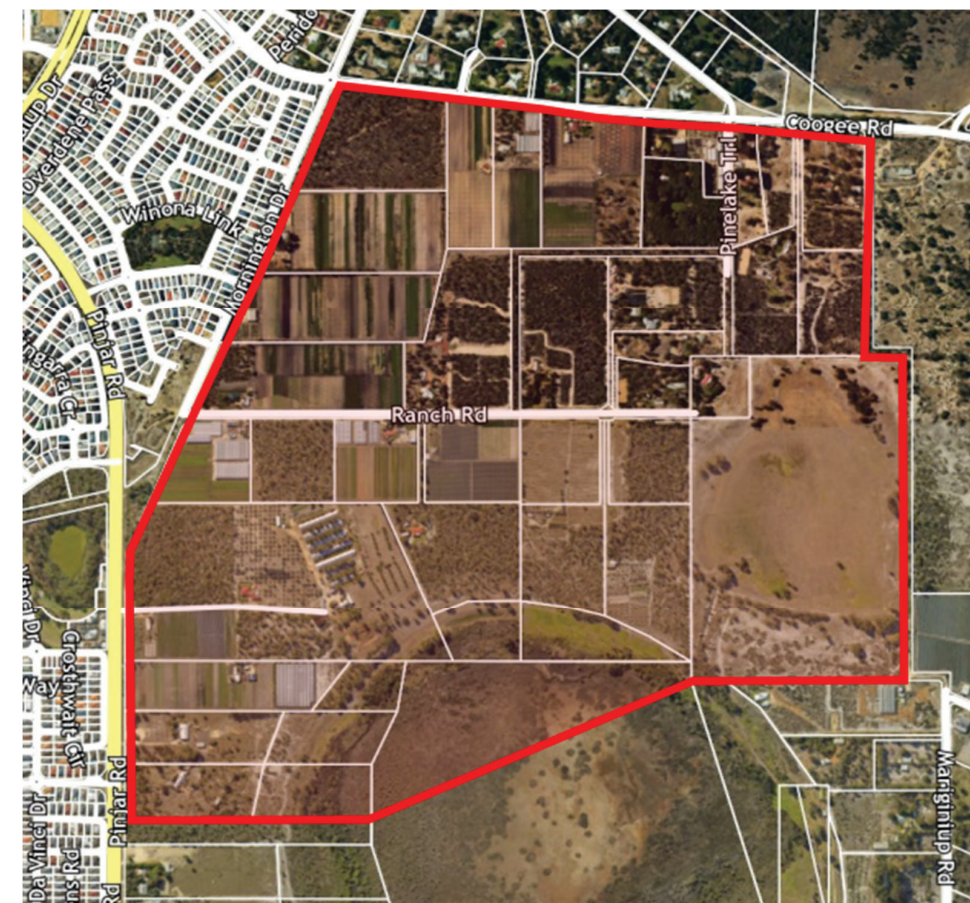


Figure 1: Site Location



## 4 Study Area

The Site is bounded by rural residential to the north (north of Coogee Road), undeveloped open area to the east, Mariginiup Lake to the south and existing residential to the west.

The Site consists of:

- Predominantly vacant land covered with agricultural crops and low-density residential dwellings.
- Vacant land with remnant vegetation throughout the Site.
- Existing Mariginiup Lake appears to predominantly facilitate a stormwater drainage function.

The Site is within the local authority of the City of Wanneroo. Refer to Figure 2 for extract of the East Wanneroo District Structure Plan showing the Precinct 8 area".

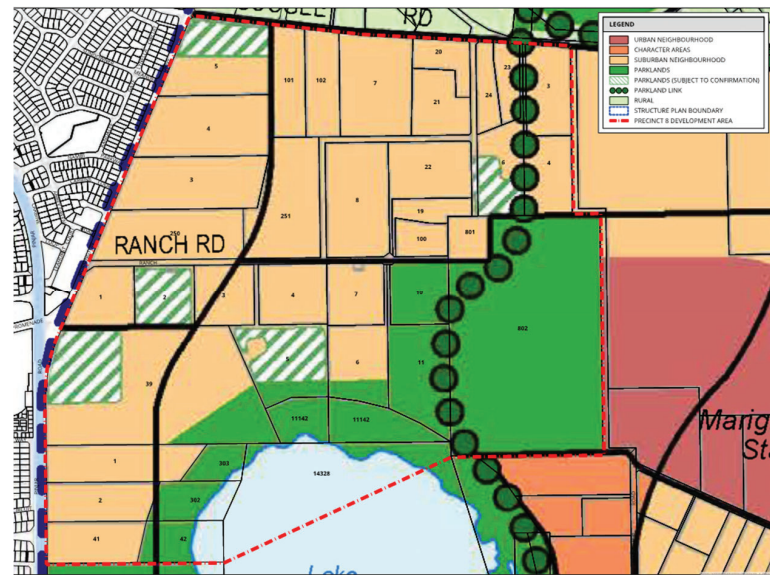


Figure 2: Precinct 8 East Wanneroo District Structure Plan

### 4.1 Topography

The Site has surface elevations ranging from approximately 45m – 65m AHD for the majority of the site, climbing to approximately 70m AHD along the Northern boundary where Coogee Road is located.

A lidar survey of the site has been undertaken by MNG on 10/01/23. A copy of the lidar survey is attached as **Appendix B**. Refer to Figure 3 below for the indicative topography of the Site.

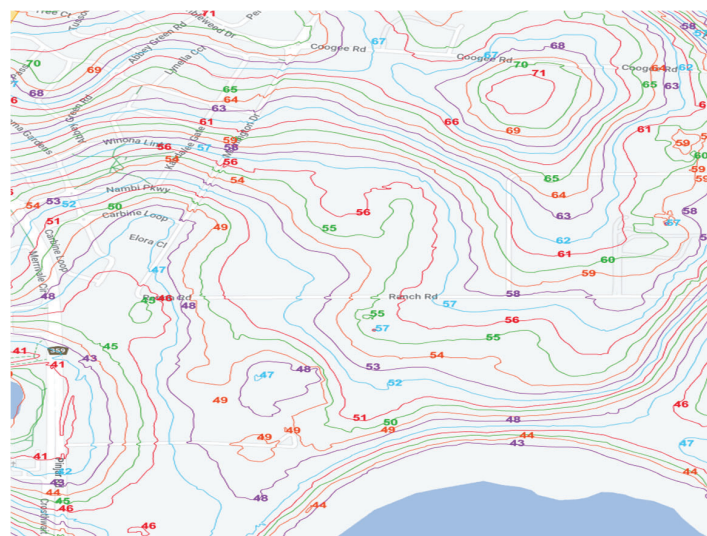


Figure 3: Site Topography (Water Corporation EsiNET Data 2023)

### 4.2 Groundwater

Perth Groundwater Map (provided by the Department of Water and Environmental Regulation) indicates that the maximum groundwater level ranges from 39.0m AHD in the west to 44.0 AHD to the east. The Site varies from 2-3m separation in the west up to 15m separation between natural surface and the maximum groundwater in the central and eastern areas. Ongoing ground water monitoring of the Precinct 8 area has been occurring in accordance with DWER guidelines.

JDSi in coordination with Pentium Water have developed a preliminary earthworks model for the LWMS which provides confirmation of minimum separation to the groundwater levels. These earthworks models have also assisted Pentium Water determine the drainage catchments areas across the Site.

### 4.3 Geological Conditions

Mapping by the Geological Survey of Western Australia (1986) indicates that the surface geology for most of the site consists of Karrakatta Sand which is brown sandy surface passing into bright yellow siliceous sand.

Site is described as low hilly to gently undulating terrain with yellow sand over limestone.

It is recommended that a site-specific investigation be carried out to further inform the civil design for the proposed development. This report should include, as a minimum, testing to confirm:

- Existing Soil Characteristics (PSD, Atterberg Limits, MMDD, soil profile).
- Pavement Design Parameters (CBP, Swell %).
- Bearing Capacities for retaining wall design.
- Site preparation and compaction recommendation.
- Drainage infiltration testing at specific locations to inform drainage basin sizing.



Figure 4: Geological Mapping (Geological Survey of Western Australia)

### 4.4 Acid Sulphate Soils

The Department of Water and Environmental Regulation (DWER) mapping indicates that there are no Acid Sulphate soils risk areas mapped over land identified for development within the Precinct 8 Local Structure Plan. But there are two other potential locations shown on DWER maps where there is High to moderate ASS risk. First is Lake Mariginiup and second is Little Lake Mariginiup. Both spots lie within existing Parks & Recreation reserves where no development is proposed. It is recommended that a high-level investigation into the occurrence of ASS should be included in a future geotechnical and environmental investigation to ensure any risks of encountering ASS are mitigated.



## 5 Bulk Earthworks

### 5.1 Bulk Earthworks

All earthworks will need to be undertaken in accordance with recommendations from a detailed Geotechnical Investigation and AS3798 - *Guidelines on earthworks for commercial and residential developments*. It is anticipated that the earthworks can be undertaken onsite utilising standard civil construction equipment.

The concept earthworks design, refer (**Appendix C**) has been undertaken to assist initial Structure Planning, sewer catchments and water management designs and has incorporated the following:

- A detailed Geotechnical Investigation, including any recommendations.
- The requirement to contain stormwater drainage onsite and applicable levels for this to be achieved.
- Drainage outfall levels for the stormwater drainage system and industry standard requirements for freeboard from the finished floor level to the 100-year flood level. This is subject to further advice provided by the hydrologist and will be verified during detailed design.
- The invert level of the existing gravity sewer mains that the development will discharge into.
- Interface and coordination with the existing levels of the adjacent road network, areas of retained vegetation, including allowances for vehicle and pedestrian access.
- Rationalisation of any required retaining walls.
- Interface and coordination with the existing structures on the site.

## 6 Roadworks

The site is largely occupied by undeveloped agricultural uses. The surrounding road network is under the control of the City of Wanneroo and as such all works on and abutting the public roads will be subject to their approval.

According to the latest Precinct 8 local Structure Plan a connecting road is provided from Pinjar Road to Ranch Road, south of the primary school. An east-west connection to the neighbouring Precinct 15 is provided to the north of Little Lake Mariginiup.

### 6.1 Existing Traffic Conditions

The Site is bounded on three sides by existing roads, namely:

- The Existing Coogee Road lies on the northern side of the development site and classified as the Local distributor road (Main Roads WA Road Hierarchy). The road is currently a single lane with two-way carriageway.
- Mornington Drive is on the western side of the development site and is also a Local distributor road single lane with a two-way carriageway. This road connects to Coogee Road with via a roundabout intersection which is at the north-western corner of the site. South of Mornington Road gets changed to Ranch Road and provides access to the residential lots.
- Pinjar Road is on the southwest side to the development site and is classified as a Distributor A road. The road is a double lane with two-way carriageways and connects to Joondalup Drive via a roundabout intersection.

### 6.2 Internal Proposed Roads Network

The role and function of the existing road network, and planned Precinct 8 road network, has been reviewed by PJA Traffic Engineering Consultants as part of the Precinct 8 Traffic Impact Assessment (TIA) supporting this Structure Plan. The details of roads will be included in the Traffic assessment report for further clarification. It should be noted that no proposed lots within the Precinct 8 Site will front Coogee Road.

## 7 Stormwater Drainage

Urban Water Management (UWM) is now a key part of any development process incorporating principles of integrating water and land use planning, considering all water sources in water planning, integrating water use and natural water processes and a total catchment integration of natural resource use and management (Ref. Stormwater Management Manual for Western Australia, DOW, April 2004 the State Water Strategy 2003, and the State Water Plan 2007).

Stormwater drainage management is a major component of an overall UWM strategy for which achievement of the principals of the plan may be facilitated through the application of Water Sensitive Urban Design (WSUD) techniques during planning, design, and construction of urban development projects. Objectives of WSUD include but are not limited to the following:

- Detention of stormwater rather than rapid conveyance to maintain predevelopment flows for quantity management.
- Use of vegetation for filtering purposes and nutrient stripping for quality management.
- Use of stormwater to conserve potable water; and
- Water efficient landscaping.

The precinct 8 local structure plan is also accompanied by an LWMS and ultimate detailed water management will be designed in accordance with City of Wanneroo design guidelines and DWER water sensitive urban design guidelines. As the City of Wanneroo will ultimately own and maintain all stormwater infrastructure the design and construction work will need to be undertaken in accordance with their guidelines and standards, as well as the Local Government Guidelines for Subdivisional Development (IPWEA). City of Wanneroo typically require:

#### Commercial Developments

- 1% AEP event to be retained on site.
- Pipework in adjoining streets to accommodate 10% AEP event.

#### Residential Developments

- 10% AEP event to be retained on site.
- Pipework in adjoining streets to accommodate 20% AEP event.

Stormwater management for the development will adopt principles of Water Sensitive Urban Design (WSUD) suited to the climatic and ground conditions, including:

- The design philosophy for the development site will need to demonstrate post development flows and volumes do not exceed pre-development flows.
- Suitable landscaping to prevent direct run-off from impervious surfaces to the existing drainage network or coastal area without suitable treatment.
- Detention storage areas provided where possible to reduce peak flow rates to the capacity of downstream facilities.
- Clear overland flow path for the 100year ARI event, with a minimum 300mm freeboard to habitable floors.
- Surface and groundwater quality will need to be maintained at predevelopment levels and improve the quality of water leaving the area, if possible.

The requirements of the stormwater drainage system and the wider terrestrial water management approaches will need to be approved by the City of Wanneroo through submission of an Urban Water Management Plan. It is recommended that a suitably qualified hydrologist is engaged to assist with the study and preparation of the Urban Water Management Plan.



## 8 Sewer Reticulation

The Water Corporation (WC) owns and maintains the sewerage reticulation system in the vicinity of the site. Any connection into this system will need to be designed, approved, and constructed in accordance with standard WC requirements.

Based on the WC EsiNET data there is an existing DN150 PVC gravity main running across the road at Mornington Drive along the west corner of the site and a DN225 PVC Gravity main running on the Mornington Drive across the road up to Mornington Drive and Coogee Road intersection.

The level of this connection should be confirmed by WC and verified as being suitable for the proposed development of the Site. Figure 5 depicts the Existing Sewer Reticulation adjacent to the Site.



Figure 5: Existing Sewer Layout (EsiNET)

Formal planning advice received from WC is summarised below. Refer to **Appendix D** for the full copy of the advice.

- Majority of the site area falls within an existing gravity catchment – the Pinjar Road Interim Wastewater Pump Station (WWPS) or PS A which has a design flow of 26.5 L/s. Therefore, the proposed subdivision areas that can be serviced via gravity sewer are planned to be serviced through this pump station. The balance of the site (eastern portion) will be serviced via a new WWPS (PS Z). This will pump to the west and connect into the gravity sewer network that connects to PS A.
- In addition to the proposed gravity sewer extensions (DN150 and DN225) it is expected there will be pump upgrades or reconfigurations to the existing Pinjar Road WWPS to accept additional flows.
- Discussions with WC's Headworks Delivery team regarding the funding and scheduling of these upgrades are to occur long before the commencement of the project.

Given this is adjacent to the existing sewer infrastructure and is considered to be frontal development, the existing spare capacity within the existing Pinjar Rd WWPS should be reserved for this Precinct.

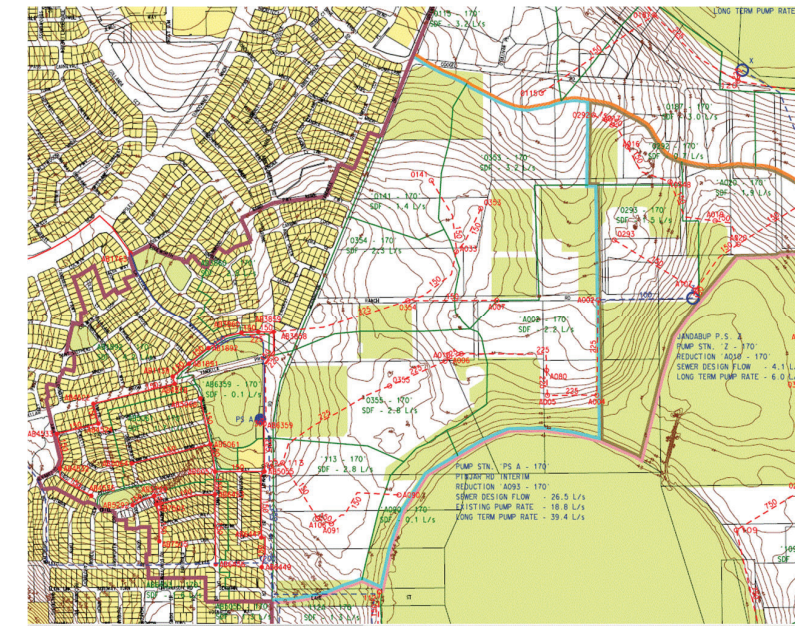


Figure 6: Water Corporation Wastewater Planning.

## 9 Water Reticulation

The Water Corporation (WC) owns and maintains the potable water reticulation system in the vicinity of the site. Any connection into this system will need to be designed, approved and constructed in accordance with standard WC requirements. It would be expected that a standard development condition addressing the above will be included on any WAPC approval.

Based on the WC EsiNET data, there is an existing 150P-12 water reticulation main running along the north side of Coogee Road and a 100P-12 water main located on the west side of Mornington Drive. A DN500 Steel main is also located on the western side of Mornington Drive which connects into the DN1000 Wanneroo Road – Yandella Promenade transfer main within Pinjar Road.

Appropriately sized water reticulation mains (DN100 - DN250) will need to be extended in a staged manner off the existing distribution mains that run along Pinjar Road (DN1000) and along Mornington Road (DN500).

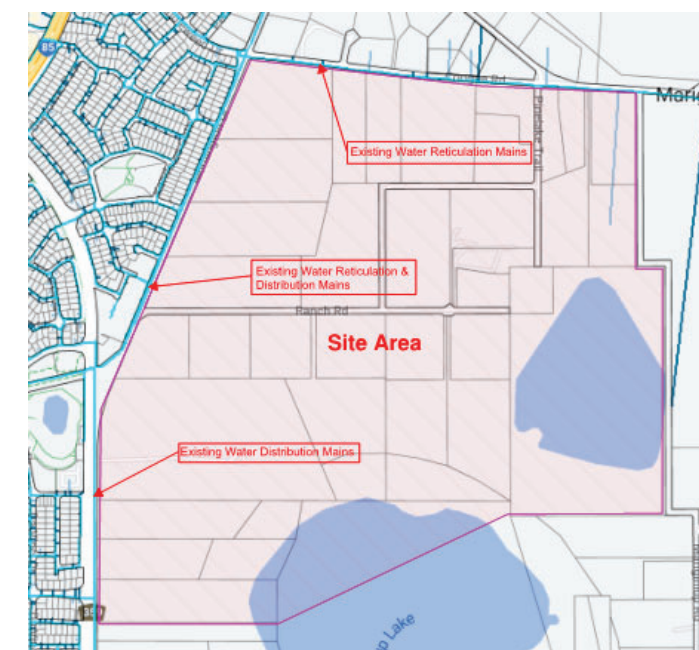


Figure 7: Existing Water Corporation surrounding water infrastructure (EsiNET)



To provide a potable water supply to the development, suitably qualified persons will be required to design the proposed water reticulation network and submit to the WC for approval. Applicable headworks charges will need to be paid by the Developer and these will be determined by the WC at the time of application.

All water main extensions required for the development site will be laid within the existing and proposed road reserves, on the correct alignment and in accordance with the Utility Providers Code of Practice and WC's Water Reticulation Pipelines DN250 and Smaller (DS63). These mains can then be used to provide potable water connections to each lot.

For formal planning advice received from Water Corporation refer to **Appendix C**.

## 10 Power Supply

Western Power (WP) owns and operates all electrical supply network assets within the development area and therefore all new electrical supply equipment and cables will need to be installed in accordance with WP, WAER (West Australian Electrical Requirements), AS3000 specifications and Standards.

The total load for the ultimate development has been estimated to be 13.5MVA and has been calculated using WP's recommended Design After Diversity Maximum Demand (DADMD). The estimated loads are summarised below.

Load Type	Volume	Load Allowance	kVA Allocated
Residential	2500 Dwellings	4.7kVA/dwelling	11,750 kVA
Primary School	1	250kVA	250 kVA
Community Space	24,580m <sup>2</sup>	200kVA / Ha	500 kVA
POS	30	30kVA / space	900 kVA
Wastewater PS	1	100kVA	100 kVA
<b>Total DADMD</b>			<b>13,500 kVA</b>

The following advice is based on JDSi desktop studies and support information obtained from the WP NCMT (Network Capacity Mapping Tool) online database.

Existing HV Overhead and Underground network have been identified within the vicinity of the development, originating from the Wanneroo Zone Substation. Wanneroo Zone Substation is the existing bulk electricity supply with the closest point of connection to the development site, approximately 3km. Based on WP forecasts remaining capacity for 2028, it is estimated that 25-30MVA is available for this HV feeder for the Zone substation.

The nearest point of connection for the site is the identified HV overhead and underground network along Coogee Road, Mornington Road and Ranch Road.

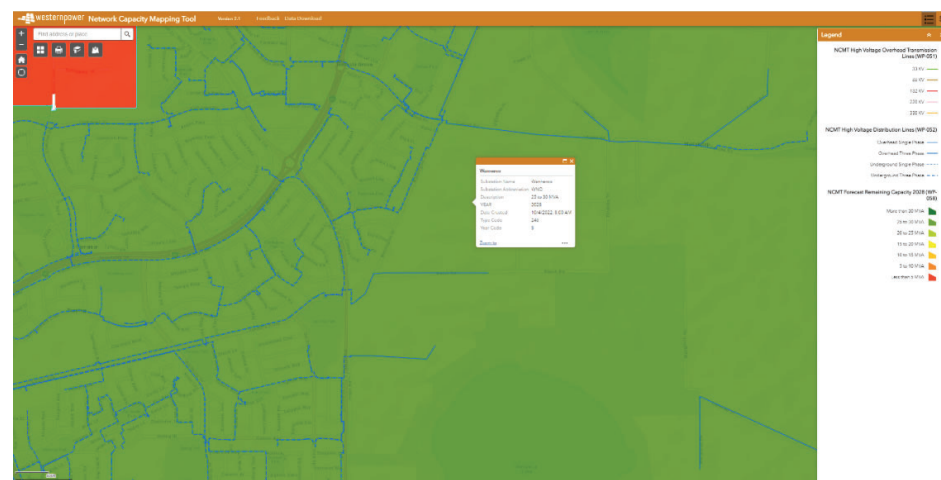


Figure 8: Surrounding Power Lines

Based on the estimated load of the ultimate development, the site will require several HV feeders to cater for the anticipated 13.5MA. WP's design philosophy is that a single dedicated feeder should only be loaded up to 8MVA.

The ultimate development is estimated to require a minimum of one 1MVA and twenty 630kVA transformers (1000kVA + 20 x 630kVA = 13,600kVA). Furthermore, the site required approximately thirteen high voltage switchgear kiosks to bring the HV power network into the subdivision.

Based on the above advice, it is very likely that the development will require WP power network reinforcement/augmentation. This will be identified and cost by WP, with the extent or works subject to network conditions at time of connection. Depending on the staging of the development, this may not be required immediately (ie at Stage 1).

Please note WP cannot reserve network capacity therefore the above advice is current as at the date of this report. Once the Development planning has been finalised it is recommended a formal Design Information Package (DIP) request is submitted to WP in order to progress the design of the first stage of the Development.

## 11 Gas

Dial Before You Dig (DBYD) information indicates that there is an existing DN90 PE HP gas main located on Mornington Drive abutting the west end of the site. It is likely that this will be insufficient to service the proposed development.

There is an existing 90PE at 350Kpa gas infrastructure in Mornington Drive as shown in Figure 10. Liaison with ATCO Gas is required to confirm whether this existing service is sufficient to service the proposed development.

DBYD notes this as a "Critical Asset" and therefore special controls are in place, including no works with 15m of the asset without ATCO Gas approval.

Reticulated gas is not considered to be an essential service and as such is generally not required as a condition of development. If the Developer wishes to connect to reticulated gas an extension to the nearest high-pressure main will be required. For commercial developments the cost of gas reticulation is typically borne by the Developer, however financial agreements can be arranged if gas usage is expected to be high.

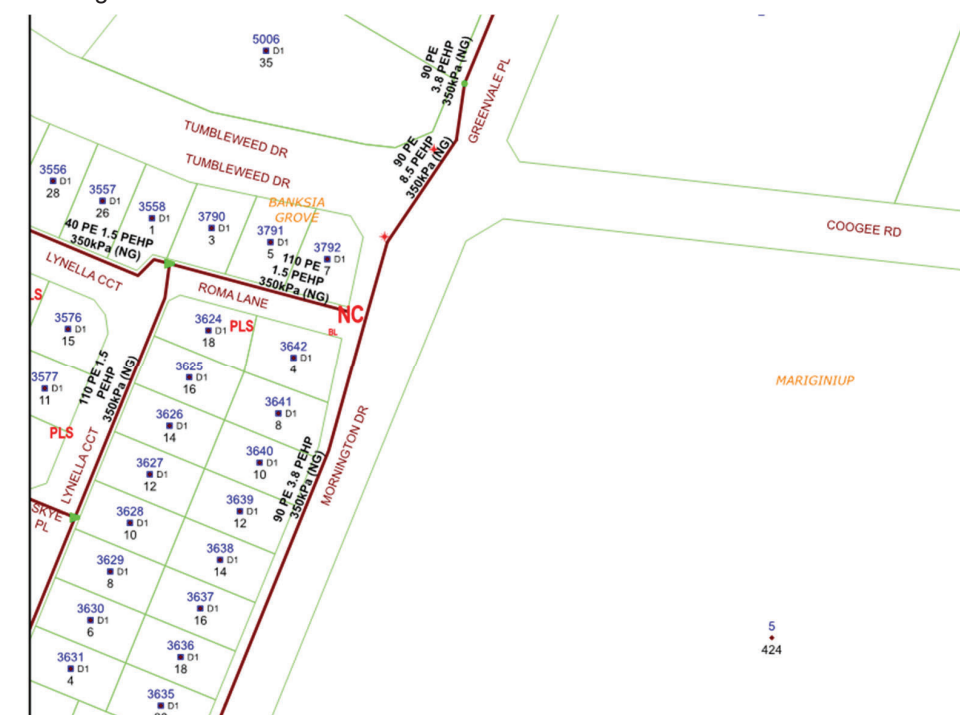






Figure 9: Existing Gas Infrastructure

## 12 Telecommunications

Dial Before You Dig (DBYD) information indicates existing communication infrastructure provided by Telstra and NBN is currently available along Pinjar Road, Mornington Drive, Coogee Road, Mariginiup Road, Ranch Road and Pinelake Trail.

An existing NBNCo DN100 PVC below ground conduit runs along the east side of Pinjar Road and Mornington Drive, south of Ranch Road, south of Coogee Road, which service the existing lots within the site area.

An existing Telstra DN100 PVC below ground pipe runs along the east side of Mornington Drive and south of Coogee Road. There is also an existing Telstra DN50 PVC along south side of Ranch Road and Telstra DN35 PVC that runs along west side of Mariginiup Road in south-eastern part of the site.

JDSi anticipate the existing infrastructure on Mornington drive, Pinjar Road, Coogee Road and Ranch Road would serve as connection points for the overall development however this would need to be confirmed with NBNCo at the time of making an application for connection and is dependent on the number of services required for the development.

General communication services for the Site will consist of the installation of a standard pit and pipe network in accordance with NBNCo guidelines and standards for Single and Multiple Dwelling Units (SDUs & MDUs). The pit and pipe system, and any internal cable routes, will be funded by the Developer with NBNCo funding the provision of installing cable into the Network Termination Device's (NTDs) or Communications Room located in the development. Due to the proximity of the existing communications infrastructure, it is not expected that significant service back haul would be required, however if it is this is a cost that will be borne by the Developer.

## 13 Disclaimer

JDSi have undertaken this assessment based on a desktop study and subsequently, assumptions have been made which, if incorrect, have potential to change the assessment and/or recommendations. Major cost implications exist through factors which cannot be assured at this time including upgrading and provision of utility services, WAPC conditions of development, Local Authority Scheme Requirements, ground conditions, timing of adjacent developments, etc.

While JDSi has taken all care in the preparation of the likely development requirements and has noted key assumptions, JDSi accepts no responsibility for the accuracy of this report and provides it only as an indicative summary of engineering requirements.

If any further information is required or should you wish to clarify any issue, please contact our office.

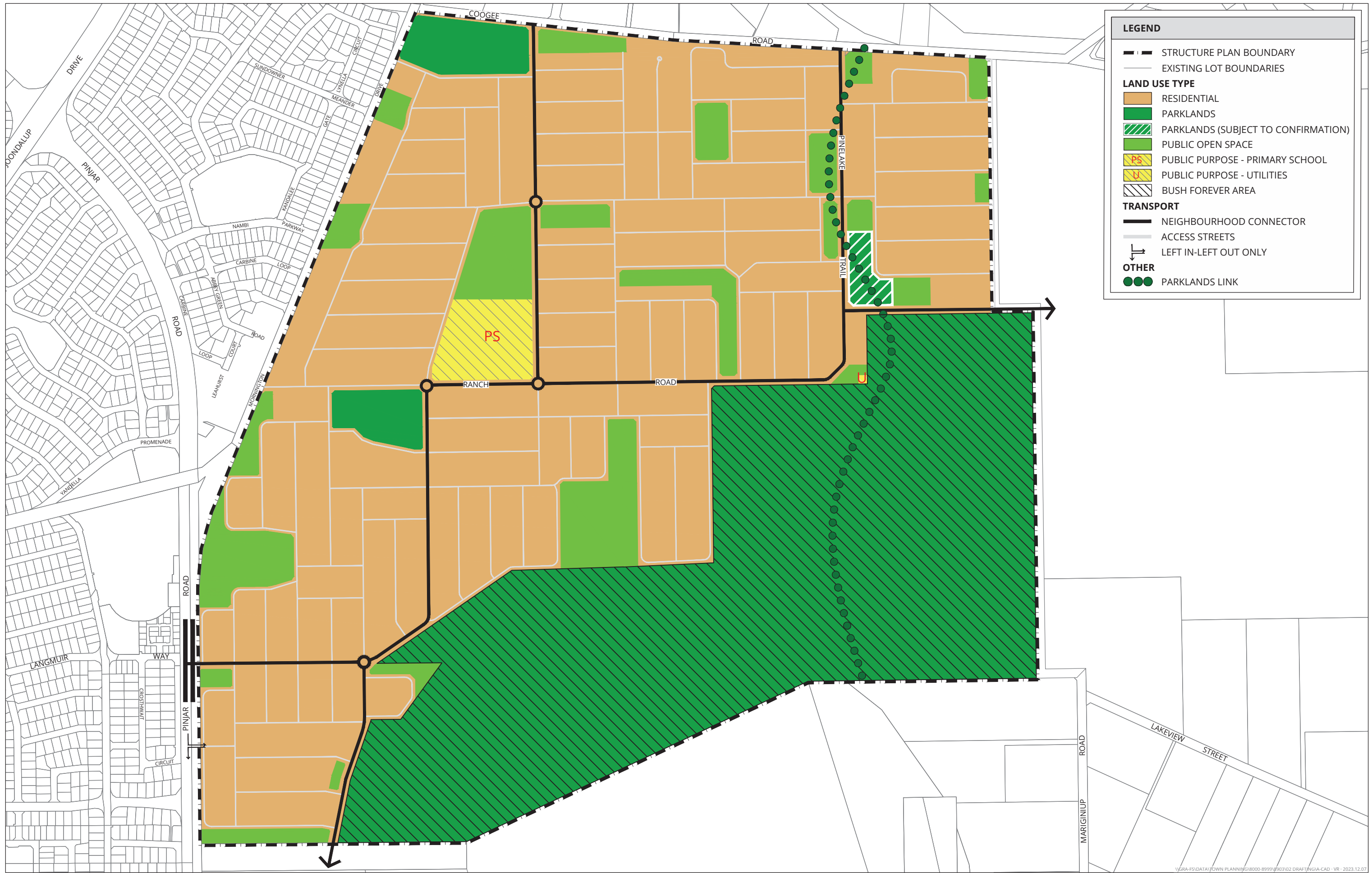




**APPENDIX A  
EAST WANNEROO CELL 8  
STRUCTURE PLAN**

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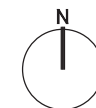


**LEGEND**

- STRUCTURE PLAN BOUNDARY
- EXISTING LOT BOUNDARIES
- LAND USE TYPE**
- RESIDENTIAL
- PARKLANDS
- PARKLANDS (SUBJECT TO CONFIRMATION)
- PUBLIC OPEN SPACE
- PUBLIC PURPOSE - PRIMARY SCHOOL
- PUBLIC PURPOSE - UTILITIES
- BUSH FOREVER AREA
- TRANSPORT**
- NEIGHBOURHOOD CONNECTOR
- ACCESS STREETS
- LEFT IN-LEFT OUT ONLY
- OTHER**
- PARKLANDS LINK

**PLAN 1 - LOCAL STRUCTURE PLAN**  
 PRECINCT 8 - RANCH ROAD  
 EAST WANNEROO

**DRAFT**



0 180 m  
 SCALE @ A3: 1:7500  
**8903-LSP-01-F**

DRAWN: VR  
 DATE CREATED: 2023.12.06  
 PROJECTION: MGA50 GDA2020  
 CADASTRE: LANDGATE  
 This document may not be reproduced without the written consent of Rowe Group. All areas and dimensions are subject to survey.



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**APPENDIX B  
MNG LIDAR SURVEY**

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1:18826@A4 400 m





**APPENDIX C  
JDSI CONCEPT EARTHWORKS  
PLAN**

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**LEGEND**

- CONCEPT DRAINAGE CATCHMENTS
- P.O.S. AREAS
- EXISTING VEGETATION TO BE PROTECTED

0 20 40 80 120m  
SCALE 1:2000 @ ORIGINAL SHEET SIZE A1

MATCHLINE A REFER DRG SK351

**WARNING**  
BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Work Health and Safety (General) Regulations 2022.

<p>NOTE This drawing shall be preliminary only until it is issued for construction. Certified Quality System to ISO 9001</p>				
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<p>NOTE LOTS UPDATED AND DRAINAGE CATCHMENT BOUNDARIES AMENDED ISSUED FOR INFORMATION</p>				
REV	DATE	DRAWN	CHECKED	APPROVED
B	06.12.23	AP		
<p>Plotted By: APanzich Plot Date: 06/12/23 - 21:02 Cad File: I:\JDS222157\JDS222157.0\02 CIVIL\Drawings\Sketches\JDS222157.0_SK350-351.dwg</p>				



CLIENT:  
QUBE PROPERTY Pty. Ltd.

PROJECT:  
CELL 8 - EAST WANNEROO  
MARIGINUP

DRAWING TITLE:  
OVERALL CONCEPT DRAINAGE PLAN  
SHEET 1




DRAWN A. PANZICH	WAPC No.
DESIGNED A. PANZICH	SCALE @ A1 1:2000
PROJECT MANAGER S. FOLEY	DATUM AHD
JDSi PROJECT No. JDS222157.0	CO-ORDS PCG94
DRAWING No. SK350	REVISION B





MATCHLINE A REFER DRG SK350



- LEGEND**
-  CONCEPT DRAINAGE CATCHMENTS
  -  P.O.S. AREAS
  -  EXISTING VEGETATION TO BE PROTECTED

0 20 40 80 120m  
SCALE 1:2000 @ ORIGINAL SHEET SIZE A1

**WARNING**  
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REV	DATE	DRAWN	CHECKED	APPROVED	ISSUED FOR INFORMATION
B	06.12.23	AP			LOTS UPDATED AND DRAINAGE CATCHMENT BOUNDARIES AMENDED
A					ISSUED FOR INFORMATION

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CLIENT:  
**QUBE PROPERTY Pty. Ltd.**

PROJECT:  
**CELL 8 - EAST WANNEROO MARGINIUP**

DRAWING TITLE:  
**OVERALL CONCEPT DRAINAGE PLAN SHEET 2**

DRAWN A. PANZICH	WAPC No.
DESIGNED A. PANZICH	SCALE @ A1 1:2000
PROJECT MANAGER S. FOLEY	DATUM AHD
JDSi PROJECT No. JDS222157.0	CO-ORDS PCG94
DRAWING No. SK351	REVISION B



**APPENDIX D  
WATER CORPORATION  
CORRESPONDENCE**

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**Steven Foley**

**From:** Brett Coombes <Brett.Coombes@watercorporation.com.au>  
**Sent:** Wednesday, 18 January 2023 2:07 PM  
**To:** Jagan Deep Singh  
**Subject:** Lot 40 Ranch Rd, Pinjar, Coogee Rd and Pinelake Trail  
**Attachments:** Jandabup SD ww concept planning excerpt.GIF; Wanneroo water planning.pdf

Hi Jagan,

Thank you for your general servicing query about this land around Ranch Rd/Coogee Rd/Pinelake Trail in East Wanneroo.

Subject to the successful rezoning of this land in the MRS and the City's LPS, and the approval of a local structure plan over the land, the Water Corporation will engage with the proponents in more detail regarding water and wastewater servicing planning. At this stage our planning is high-level/conceptual (attached).

In general terms, most of the subject area is located in the gravity catchment of the existing Pinjar Rd Interim WWPS (PS' A). The proposed subdivision area is planned to serviced through this PS. The proponents will need to undertake gravity sewer extensions (225mm and 150mm) to discharge into the WWPS.

It is likely that some pump upgrades/reconfiguration will need to be undertaken at the Pinjar Rd WWPS to accept the additional flows. The funding and scheduling of these upgrades should be discussed with the Corporation's Headworks Delivery team well in advice of subdivision proceeding.

For water servicing, appropriately sized water reticulation mains (250mm, 200mm, 150mm, 100mm) will need to be extended in a staged manner off the existing distribution mains that run along Pinjar Rd (1,000mm dia) and along Mornington Rd (500mm dia). A more detailed reticulation mains extension strategy can be prepared around the adopted local structure plan, when available.

If you have any further questions, please contact me on Tel. 9420-3165.

Regards

Brett Coombes  
Senior Urban Planner  
Development Services  
Tel. 9420-3165

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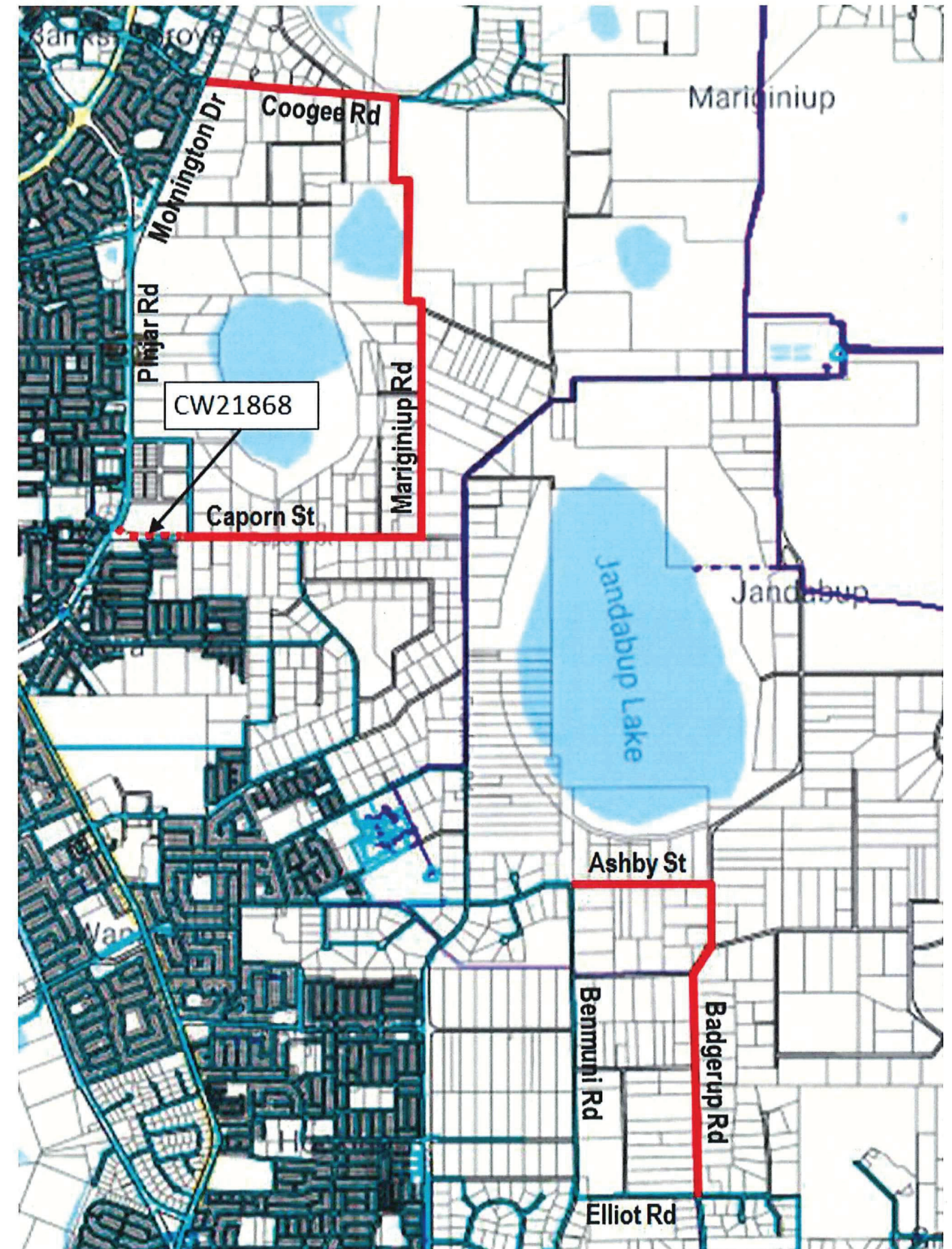
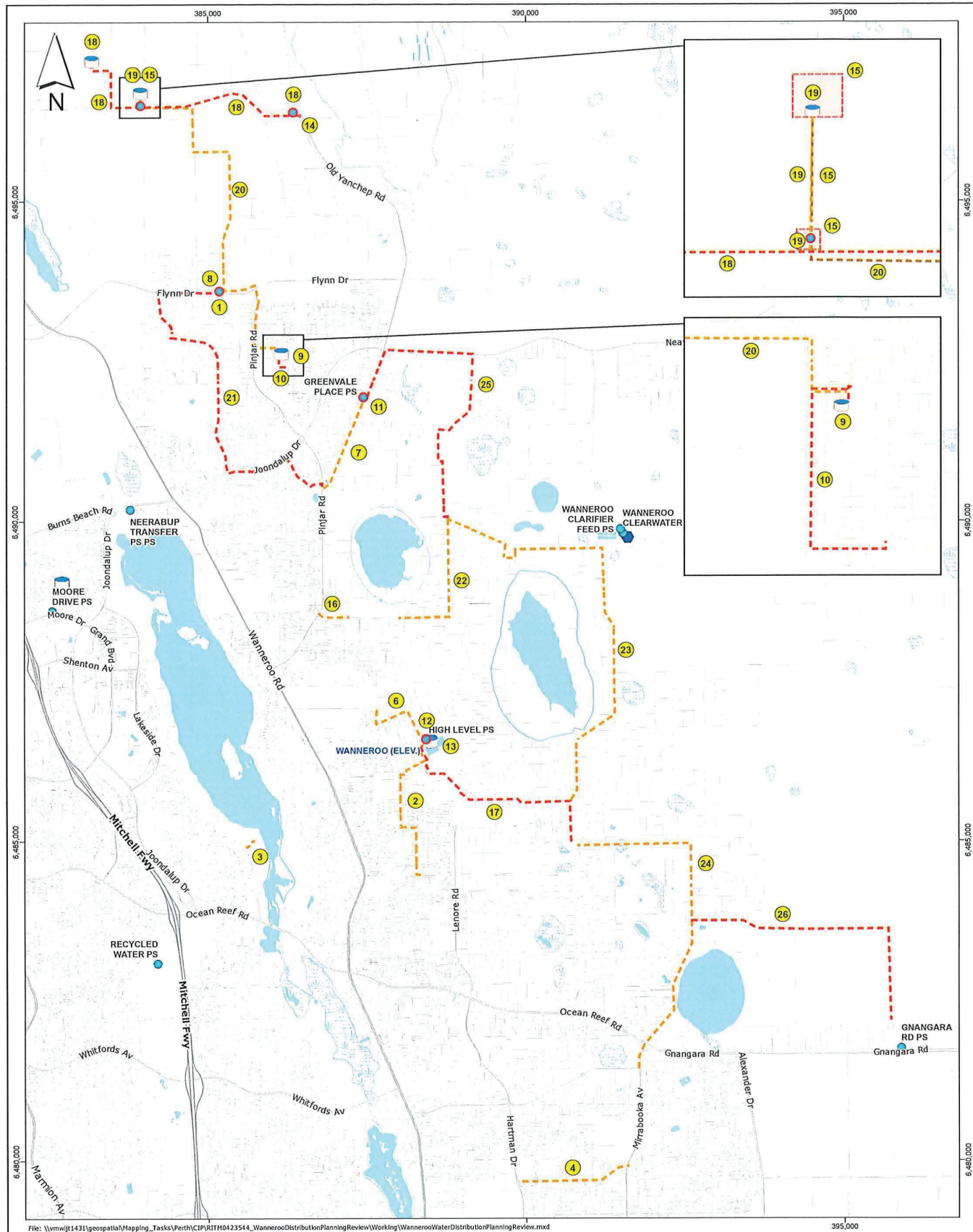


Figure 5.1 Critical Wanneroo Gravity DN250 Reticulation





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**LEGEND**

CIP Planned Assets	Existing Water Tank
Pump Station	Existing Pump Station
Tank/Reservoir	Existing Treatment Plant
Distribution Main	Cadastre
Distribution Main	Reference No
Land Acquisition	

1:55,000 at A3

0 500 1000 1500 2000 Metres

Coordinate System: GDA 1994 MGA Zone 50  
Vertical Datum: AHD

AUTHOR: LANGRISH DATE: 22/04/2021  
BRANCH: DTG - MAPPING & GEOSPATIAL

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**WATER CORPORATION**  
Wanneroo Gravity & High Level Water Distribution Planning CIP Plan

RITM0423544

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