

# CITY OF GREATER GERALDTON

LOCAL STRUCTURE PLAN REPORT

LOT 202 MERU TIP ROAD, NARNGULU



robertsday

MAY 2013

# PART ONE: STATUTORY SECTION

## 1.0 STRUCTURE PLAN AREA

This Part applies to Local Structure Plan area (LSP area) being all land contained within the inner edge of the orange line shown on the Local Structure Plan (LSP) (refer Plan 1).

## 2.0 STRUCTURE PLAN CONTENT

This Structure Plan comprises:

- Part One – Statutory Section (Structure Plan map and all statutory provisions);
- Part Two – Non-Statutory (Explanatory) information (used as a reference guide to interpret the implementation of Part One);
- Appendices

## 3.0 INTERPRETATIONS AND SCHEME RELATIONSHIP

The words and expressions used in this LSP shall have the respective meanings given to them in the City of Greater Geraldton Town Planning Scheme No.5 (TPS5).

The LSP has been prepared in accordance with CI 5.17.12.2 and 3 of TPS5:

*If a provision of a structure plan is inconsistent with a provision of the Scheme, then the provision of the Scheme prevails to the extent of the inconsistency. The provisions of the structure plan apply to the land as if its provisions were incorporated into the Scheme and it is binding and enforceable in the same way as corresponding provisions incorporated in the Scheme.*

## 4.0 OPERATION

In accordance with sub-clause 5.17.12.1 (a) and (b) of TPS5, this LSP shall come into operation where the LSP proposes the subdivision of land on the day on which it is endorsed by the Western Australian Planning Commission.

## 5.0 LAND USE AND SUBDIVISION REQUIREMENTS

### 5.1 Land Use

The LSP delineates and depicts the zones and reserves applicable to the LSP area according to the legend thereon.

The zones and reserves designated under this LSP apply to the land within it as if the zones and reserves were incorporated in TPS5.

Table 1: Schedule 3 - Restricted Uses from TPS5

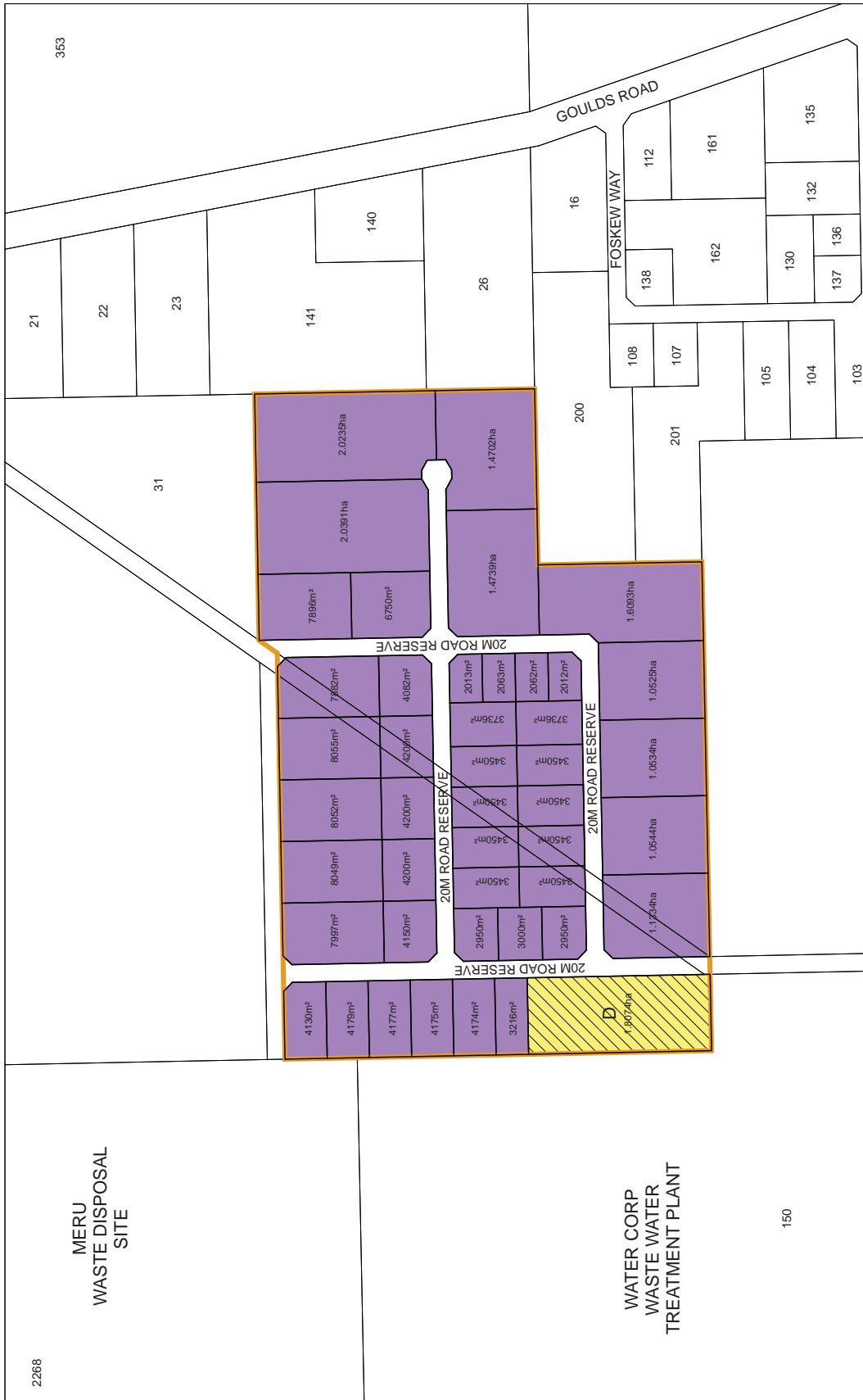
No.	Description of Land	Restricted Use	Conditions
R5	Lot 202 Narngulu as shown on Scheme Map 5/12 as R5	<ul style="list-style-type: none"><li>• Dry Cleaning Premises;</li><li>• Industry -Light;</li><li>• Industry-Service</li><li>• Motor Vehicle Wash</li></ul> are NOT PERMITTED	<ol style="list-style-type: none"><li>1. Prior to any subdivision a structure plan shall be prepared and endorsed by both the local government and Western Australian Planning Commission and subdivision shall be in accordance with this Plan.</li><li>2. Any future title created has a Section 70A Notice under the Land Administration Act notifying the area is within respective environmental buffer zones.</li></ol>




### 5.2 Subdivision

Subdivision and development shall generally be in accordance with the LSP or any variations as approved by the City of Greater Geraldton or the WAPC.

### 5.3 Drainage Reserve

The final configuration and dimensions of the Public Purpose Drainage reserve will be determined at the detailed subdivision stage, following further geotechnical investigations and drainage modelling.



- Legend**
-  Site Boundary
  -  General Industry
  -  Public Purposes Drainage



Plan 1: Local Structure Plan

CERTIFIED THAT THIS STRUCTURE PLAN  
WAS ADOPTED BY RESOLUTION OF THE  
WESTERN AUSTRALIAN PLANNING COMMISSION ON

3 October 2013 Date

Signed for and on behalf of the Western Australian Planning Commission

[Signature]  
an officer of the Commission duly authorised by the Commission pursuant to section <sup>24 etc.</sup> 16 of the  
Planning and Development Act 2005 for that purpose, in the presence of:

M. Weir Witness

3 October 2013 Date

And by  
RESOLUTION OF THE COUNCIL OF THE CITY OF GREATER GERALDTON ON

27 AUGUST 2013 Date

And  
PURSUANT TO THE COUNCIL'S RESOLUTION HEREUNTO AFFIXED IN THE PRESENCE OF:

[Signature]  
Mayor, City of Greater Geraldton

[Signature]  
Chief Executive Officer, City of Greater Geraldton

3 SEPTEMBER 2013 Date

This Structure Plan is prepared under the provisions of the  
City of Greater Geraldton Local Planning Scheme No. 5 (Greenough)



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### 1.0 PLANNING BACKGROUND

#### 1.1 Introduction and purpose

This report has been prepared on behalf of Wandina Pty Ltd, the proprietor of Lot 202, Narngulu, Geraldton (LSP area). The site is currently zoned 'General Industry - Restricted Use' and a Local Structure Plan (LSP) is required to be prepared to guide subdivision and development. The objective of the LSP is to guide subdivision within the LSP area for general industrial purposes.

#### 1.2 Land description

##### 1.2.1 Location

The LSP area is in the locality of Narngulu which is approximately 6.5 kilometres south east of the Geraldton City Centre within the municipal boundaries of the City of Greater Geraldton. The LSP area is directly adjacent to general industrial development to the east, land used for agricultural purposes to the west, vacant land in the north and tailing ponds associated with the mineral sands mine (Iluka) to the south. Meru Tip Road runs in a south west/north east alignment through the LSP area and is connected to Landfill Lane and Goulds Road to the north east.

##### 1.2.2 Area and land use

The LSP area has a total area of 33.49 hectares and is currently utilised for agricultural purposes.

Figure 1: Context Plan



Figure 2: Site Plan



### 1.2.3 Legal description and ownership

The legal description of the LSP area is provided in Table 1 below.

**Table 1: Legal description of land**

<b>Lot No.</b>	<b>Street Address</b>	<b>Ownership</b>	<b>Volume &amp; Folio (CT)</b>	<b>Plan No.</b>	<b>Area (ha)</b>
202	Meru Tip Road	Wandina Pty Ltd	2568/50	41398	33.49

A copy of the Certificate of Title is contained in Appendix 1

## 1.3 Planning framework

### 1.3.1 Zoning and reservations

#### 1.3.1.1 City of Geraldton Town Planning Scheme No.5 (City of Geraldton-Greenough, 2007)

The LSP area is zoned 'General Industry' with a Restricted Use designation under the provisions of the City of Greater Geraldton Town Planning Scheme No.5 (TPS5). Clause 4.2 of TPS5 provides the following objectives for the 'General Industry' zone:

*“To provide land for manufacturing industry which by reason of its emissions and bulk require adequate separation from residential areas”*

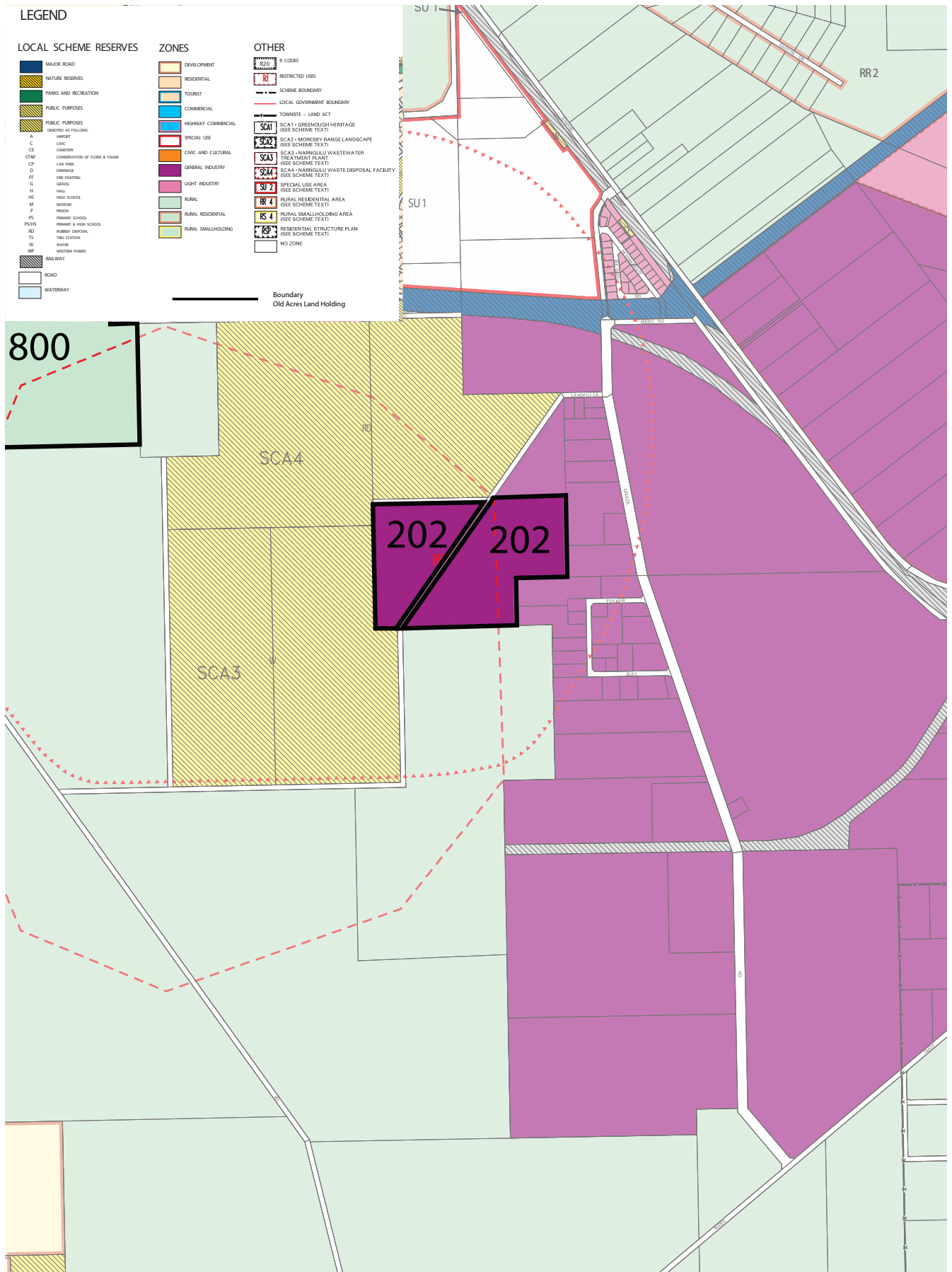
Schedule 3 of TPS5 outlines the Restricted Use and Conditions that apply to the LSP area including the requirement for the preparation of a LSP.

**Table 2: TPS5 Schedule 3 provisions**

No.	Description of Land	Restricted Use	Conditions
R5	Lot 202 Narngulu as shown on Scheme Map 5/12 as R5	<ul style="list-style-type: none"><li>• Dry Cleaning Premises;</li><li>• Industry -Light;</li><li>• Industry-Service</li><li>• Motor Vehcile Wash</li></ul> are NOT PERMITTED	<ol style="list-style-type: none"><li>1. Prior to any subdivision a structure plan shall be prepared and endorsed by both the local government and Western Australian Planning Commission and subdivision shall be in accordance with this Plan.</li><li>2. Any future title created has a Section 70A Notice under the Land Administration Act notifying the area is within respective environmental buffer zones.</li></ol>

This Local Structure Plan has been prepared in accordance with the requirements of TPS5.

Figure 3: TPS Zoning Plan



## **1.3.2 Regional and sub-regional structure plans**

### ***1.3.2.1 Greater Geraldton Structure Plan (WAPC, 2011)***

The LSP area is subject to the provisions of the Greater Geraldton Structure Plan (GGSP) prepared by the Department of Planning (DoP). The GGSP provides a framework for future urban, rural and industrial land use within the Greater Geraldton Region. Under the provisions of the GGSP the LSP area is identified for 'industrial and service commercial' development.

The design of the LSP has been prepared to allow for industrial development and is therefore consistent with the direction of the GGSP.

## **1.3.3 Planning Strategies and Reports**

### ***1.3.3.1 Mid West Regional Planning and Infrastructure Framework (WAPC, 2011)***

The Mid West Regional Planning and Infrastructure Framework (Mid West Framework) provides:

- A regional context for land-use planning in the Mid West;
- An overview of the major regional economic, social, cultural and environmental issues;
- The priority actions required to enable comprehensive regional and sub-regional planning; and
- The priority regional infrastructure projects to facilitate economic and population growth in the Mid West.

The Mid West Framework once finalised will be a regional strategy as recognised by State Planning Policy No.1: State Planning Framework. The GGSP, of which this LSP is compliant with, has been prepared in accordance with the Mid West Framework. The Mid West Framework also states that future planning and development in the Narngulu Industrial Area (of which the subject site is within) should be prepared in accordance with the Narngulu Industrial Area Strategic Land Use Directions



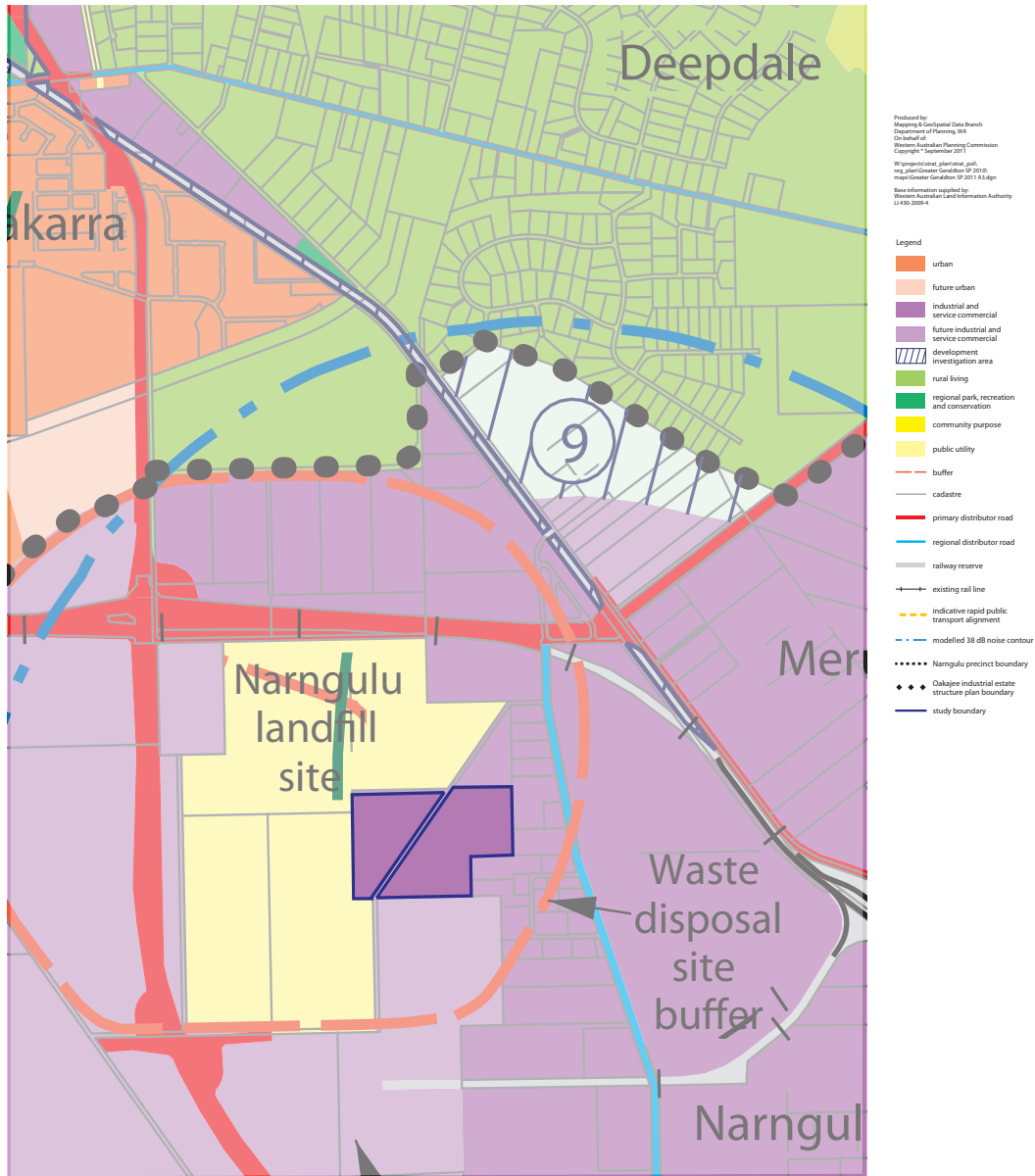


Figure 4: Greater Geraldton Structure Plan



### 1.3.3.2 Narngulu Industrial Area – Strategic Land Use Directions (NIASLUD)

The NIASLUD provides broad land use planning direction to enable landowners, government agencies and the City of Greater Geraldton to proceed with more detailed planning and design. The guidance provided by the NIASLUD will assist in the supply of industrial land and associated infrastructure requirements.

As stated in Section 1.3.3.1 the LSP area is identified as being within the Narngulu Industrial Estate, which also accommodates the Narngulu waste disposal site, the Narngulu wastewater treatment plant and the Geraldton Regional Prison.

Table 3 below outlines the LSP’s conformity with relevant provisions of the NIASLUD.

**Table 3: Conformance with the NIASLUD**

Provision	Conformance
The introduction of additional heavy industry should be avoided given regional planning objectives and concerns regarding the impacts of noise and emissions on the surrounding urban area. The Geraldton Region Plan and Greater Geraldton Structure Plan identify Wizard Peak and the Oakajee industrial area as more suitable alternatives for the location of such industries;	Heavy industrial uses (categorised as industry mining; industry resource processing; industry hazardous; and industry noxious) are discretionary uses under TPS5 and require the City’s planning consent. Therefore the City has the ability to regulate the type of industrial development that occurs in the LSP area.
Caretakers dwellings should continue to not be permitted in light and general industry zones	Caretaker’s dwellings are not proposed as part of the LSP
Residential and other sensitive land uses are not appropriate in the Narngulu wastewater treatment plant buffer, the waste disposal site buffer, in the industrial estate buffer and the 38 dB noise contour;	Residential is not permitted under TPS5 in a ‘General Industry’ zone and is not proposed in this LSP.
Local structure planning should be used to guide local scheme amendments, subdivision and development in the Narngulu industrial area;	The LSP is being prepared in accordance with this requirement.
The recognition of, and management of, water resources and drainage issues is an important consideration and needs to occur as part of local structure planning for the area. Water resource management is an input into guiding scheme amendments, subdivision and development in Narngulu. Any proposed local structure plan or outline development plan must address environmental issues and be supported by an appropriate level of water resource management and drainage information, as outlined in the Better Urban Water Management (2008) framework.	As required a Local Water Management Strategy (LWMS) is contained in Appendix 2.

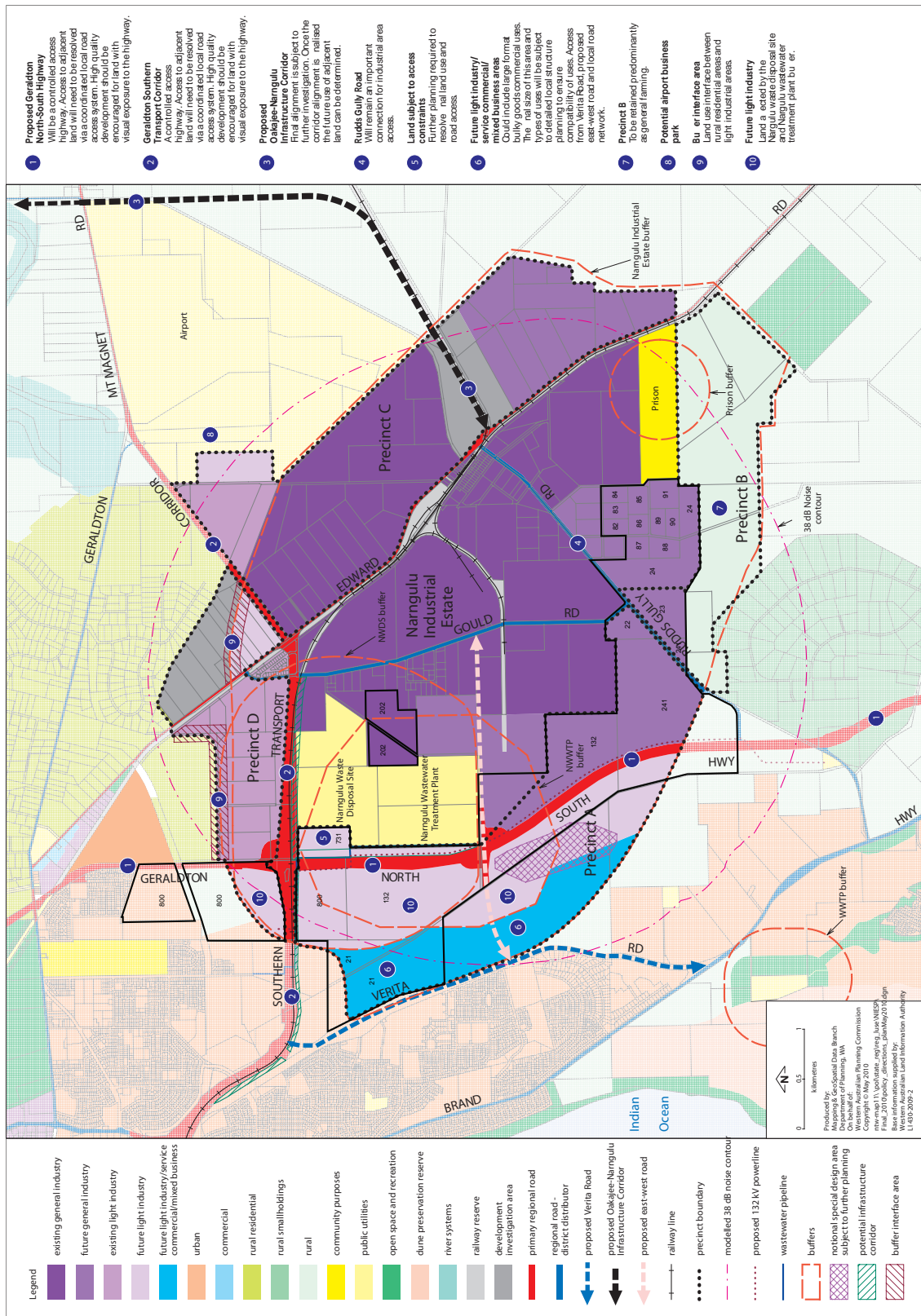


Figure 5: Nangulu Industrial Area - Strategic Land Use Directions

Strategic land use directions plan

## 1.3.4 Policies

### 1.3.4.1 State Planning Policies

#### [State Planning Policy No.1: State Planning Framework](#)

The State Planning Framework (SPP1) unites existing state and regional policies, strategies and statements under a central framework to provide a context for decision-making on land use planning and development matters in Western Australia. The LSP is consistent with the primary aim of SPP1, which is "...to provide for the sustainable use and development of land". The WAPC and local government will refer to the relevant planning instruments referred to under SPP1 for all planning decisions, including those concerning the LSP and subsequent planning proposals presented for the site.

The proposed LSP specifically satisfies the following principles outlined in SPP1:

*Economy: To actively assist in the creation of regional wealth, support development of new industries and encourage economic activity in accordance with sustainable development principles.*

*Regional Development: to assist the development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.*

#### [State Planning Policy No.2: Environmental and Natural Resources Policy](#)

State Planning Policy No.2 Environment and Natural Resources (SPP2) sets out a planning response to environment and natural resource management issues within the framework of the State Planning Strategy. The broad objectives of the policy is to:

- Integrate environment and natural resource management with broader land use planning and decision-making;
- Protect, conserve and enhance the natural environment; and
- Promote and assist in the wise and sustainable use and management of natural resources.

The site has been cleared and is currently use for agricultural purposes. There are no environmental features on the site that require protection or management. A LWMS has been prepared to ensure stormwater and groundwater resources are managed efficiently. The LWMS is contained in Appendix 2.

#### [Development Control Policy 4.1: Industrial Subdivision](#)

Development Control Policy 4.1: Industrial Subdivision (DCP4.1) provides guidance with regard to industrial design in consideration of the Industrial Subdivisions. DCP4.1 provides design guidance that is relevant to the LSP, namely:

- Lots should offer maximum utility in terms of budding space and accessibility bearing in mind the requirements of modern industrial activities;

The LSP has been designed in accordance with the above provision with more detailed design rationale provided in Section 3.

### 1.3.4.2 City of Greater Geraldton - Local Planning Policies

#### [Local Planning Policy – Industrial Development](#)

Local Planning Policy – Industrial Development (Industrial Development Policy) provides built form guidance for industrial development to ensure new industrial development is of a high structural and aesthetic quality. The Policy also provides guidance for landscaping and strata subdivision.

Strata subdivision is not planned for the LSP area and as such this aspect of the policy is not relevant. Appropriate landscaping will be provided within the streetscape to ensure the industrial area is a presentable and attractive environment.

## 2.0 SITE CONDITIONS AND ENVIRONMENT

### 2.1 Landform and soils

The site topography is relatively flat. Elevation varies between approximately 22m Australian Height Datum (AHD) across the majority of the site, decreasing to 20m AHD on a section of the southern boundary

Regional mapping by the Geological Survey of Western Australia (Landform Resources Series, 2000) indicates that the site is situated within the Greenough Alluvium System, described as:

- Greenough Alluvium – Alluvial plain; silty sandy clay over sandy gravel.

Regional soil mapping indicates that the sub-system present onsite is described as (DoA, 2004):

- Greenough 4 Bootenal - well drained phase soil subsystem: level to very gently undulating prior alluvial depositional plain (1-3% slope). Red sandy and loamy duplex soils with brown deep sands.

Correspondence with CoG has commented that site specific geology is primarily clay. Wood & Grieve Engineers have undertaken an initial site visit which validated this. It was noted that there are also areas of sandy clays and two areas of surface rocky outcrops.

A detailed Geotechnical investigation within the site will be completed prior to the subdivision stage to enable a more comprehensive assessment of the site soils.

### 2.2 Groundwater and surface water

#### 2.2.1 Groundwater

The site lies above superficial sediment shallow aquifers typical of the Perth Basin Region. The unconfined or 'superficial' aquifer occurs in the underlying sands. Beneath the superficial aquifer lie the confined Leederville formation and the confined Yarragadee formation.

The area lies within the proclaimed Arrowsmith Groundwater Area, which covers the northern-most extent of the Northern Perth Basin.

## 2.2.2 Surface Water

The Department of Environment and Conservation (DEC) geomorphic mapping does not extend to the site. However, it is evident from the aerial images that there are no surface water features within or adjacent to the site.

Surface water runoff from the site and catchment upstream currently flows overland as sheet flow in a south westerly direction.

## 2.3 Context and analysis

Historically the site has been utilised for farming and agriculture. It has been cleared and there is currently no remnant vegetation. Meru Tip Road runs through the site from the north east corner to the south west corner. Surrounding land uses are described below:

- Rural landholdings located to the west.
- The Narngulu waste disposal site is located directly north of the site.
- The Water Corporation Narngulu Waste Water Treatment Plant (WWTP) is located approximately 500m south of the landholdings.
- Geraldton Airport is location approximately 2.5km to the north-east of the site.

## 3.0 LAND USE AND SUBDIVISION REQUIREMENTS

### 3.1 Land use

The LSP is designed to provide a range of lot sizes suitable to accommodate a variety of industries. Lot sizes are large enough to allow for vehicle manoeuvrability and on-site parking. The proposed lot configuration (rectangular) and areas also ensure there is sufficient space for expansion for existing, adjoining local industries.

The characteristics of the site are ideal for industrial development, being generally flat and free of encumbrances. The site is free of any future environmental pressures, ensuring it is an attractive long-term option for a range of industries.

**Table 6: Structure Plan Summary Table**

Item	
Total area covered by the structure plan	33.49ha
Area of specified land use	
• General Industry	28.07ha
• Public Purpose - Drainage	1.79ha
Estimated lot yield	45

The LSP is shown on Figure 6.



Figure 6: Local Structure Plan



### 3.2 Movement networks

The LSP has been designed to accommodate a conventional movement network, gaining access from the existing Meru-Tip Road in the north. The existing Meru-Tip Road reserve has been re-configured into a conventional road network and State Land Services has provided support for the closure of the affected parts of Meru-Tip road and the subsequent relocation of the existing water main (a letter of support from from State Land Services is contained in Appendix 4). All roads in the LSP have a width of 20 metres (pavement width of 8-9m wide), which is in accordance with the CoGG’s requirements for industrial developments, allowing ease of movement for a variety of vehicle types. An appropriately sized turn around area is provided in the eastern portion of the lot.

### 3.3 Water management

Stormwater management solutions will ensure pre-development base flow and peak flows into downstream natural water courses are maintained and not exceeded, whilst ensuring flood protection to proposed lots.

Solutions include a combination of roadside swales and a downstream basin to convey and attenuate post development flows. The Local Water Management Strategy (LWMS), which is contained in Appendix 2 provides a detailed explanation of the following strategies in accordance with the Earthworks and Drainage Concept Plan which is within the Servicing Report (Appendix 3).

**Table 7: Local Water Management Strategy Summary Table** (extract from the LWMS contained in Appendix 2)

Key Elements	Design and Compliance to Objectives
Water Conservation Strategy (Section 3 of LWMS)	<ul style="list-style-type: none"> <li>• Potable water will be sourced from the regional scheme.</li> <li>• No POS or associated irrigation is proposed.</li> <li>• Due to the nature of the development, limited irrigation will be required on individual lots.</li> <li>• Wastewater will be disposed of via individual lot Aerobic Treatment Units (ATUs).</li> <li>• Educational material will be provided to lot owners to encourage water conservation within the industrial lots.</li> </ul>
Water Quantity Management (Section 4 of LWMS)	<ul style="list-style-type: none"> <li>• There are no existing defined drainage lines or drainage infrastructure across the site. Runoff flows as sheet flow in a south westerly direction.</li> <li>• Post development lot runoff up to the 1 year ARI event will be managed in drainage basins within individual lots.</li> <li>• Post development lot runoff above the 1 year ARI event and all road runoff up to a 100 year ARI event will be conveyed via roadside swales and the road reserve towards a receiving detention basin in the south west corner of the site.</li> <li>• The detention basin will be designed to store runoff from a 10 year ARI event. Runoff in excess of this event will overtop the basin via a spillway weir.</li> <li>• Discharge from the site will flow overland in a south westerly direction as per pre-development conditions.</li> <li>• Surface water runoff from the catchment upstream of the site will be conveyed through the development via the road reserve. Drainage calculations have included pre development flow rates from the upstream catchment to be maintained.</li> </ul>
Water Quality Management (Section 5 of LWMS)	<ul style="list-style-type: none"> <li>• Industrial land use has very low nutrient input due to the lack of POS areas and lack of fertiliser requirements.</li> <li>• Waste and construction management will be achieved through management of litter, sediment and organic material (i.e. street sweeping).</li> <li>• Runoff generated on site will flow through individual lot detention basins, roadside swales and the main detention basin in the south west corner of the site.</li> <li>• Hazardous chemicals, hydrocarbons and other major pollutants will be managed at lot level as per Building Regulations.</li> <li>• Vegetation will be used within the lot drainage basins to treat the water quality from 1 year ARI events.</li> </ul>
Monitoring (Section 6)	<ul style="list-style-type: none"> <li>• No monitoring is required pre or post development at the site as agreed with the Department of Water (DoW) (Appendix A of LWMS).</li> </ul>
Implementation (Section 7)	<ul style="list-style-type: none"> <li>• Roles and responsibilities involved in the implementation of the LWMS are identified.</li> </ul>

## 3.4 Infrastructure coordination, servicing and staging

Wood and Grieve Engineers have prepared a Servicing Report that outlines civil servicing requirements for the proposed development. The Servicing Report is contained in Appendix 3.

### 3.4.1 Earthworks

Importation of fill and minor onsite cut to fill will be required to create generally flat lots that provide adequate clearance to stormwater drainage systems and overland stormwater flood routing in accordance with Shire of Greater Geraldton requirements. Retaining walls will not be required for this development.

Appendix B in the Servicing Report contains the Earthworks & Drainage Concept Plan. A detailed Geotechnical investigation is yet to be completed and will be required to finalise detailed design.

### 3.4.2 Potable Water

The Water Corporation has confirmed that this development will require an offsite water main upgrade to satisfy the ultimate water demand. It is likely existing water reticulation infrastructure would be adequate to cater for an initial stage of development only. The potential upgrade includes 300m of a DN300 water main in Goulds Road, extending from Landfill Lane to the Southern Transport Corridor. Refer to the Servicing Report contained in Appendix 3 to view the Water Corporation asset plan.

This development would initially be serviced via the existing DN150 water main in Meru Tip Road. This existing main would be realigned through the proposed subdivisional road reserves.

A commitment to supply water to this site cannot be made until the Water Corporation has formally adopted the Narngulu Strategic Land Use Plan. Hydraulic modelling and regional water planning is currently being considered by the Water Corporation.

This advice remains subject to the above outcomes and timing of this and surrounding developments.

### 3.4.3 Wastewater Servicing

Wastewater servicing for this site would be managed by Aerobic Treatment Units (ATU), which will be installed at the time of building construction.

Each freehold lot would specify and maintain an ATU for their respective building requirements. As the approving authority, the Department of Health are yet to formally respond to our enquiry, however the City of Greater Geraldton have commented that onsite treatment and disposal of wastewater using ATU's is the logical and favoured option, considering all lots are larger than 2000m<sup>2</sup>.

The Water Corporation advise there is no wastewater planning over Lot 202. The site is located within the Wastewater Treatment Plant odour buffer and subsequently compatibility uses apply. Refer Appendix C of the Servicing Report for buffer zone.



### **3.4.4 Power**

The Western Power Feasibility Study (see Appendix 3 of the Servicing Report) confirms the LSP area can be serviced by the existing network without the need for offsite upgrade works.

This development can be serviced via connection to the existing 33KV overhead power cable traversing the site at Meru Tip Road. Based on Western Power's minimum commercial load requirement each lot will be provided with 200kVA per hectare amounting to a total of 6MVA added to the network.

Transformers will be placed at strategic locations throughout the development with low voltage mains cables reticulating to standard pillars at each lot. Lots exceeding 8,060m<sup>2</sup> will require individual transformers to be placed on or directly adjacent the lot. Existing overhead power cables traversing the site will be removed and replaced with underground cables throughout proposed road reserves.

Due to the dynamic nature of Western Power's network, capacity, infrastructure requirements and connection points may differ at the time when the subdivision proceeds and a Design Information Package is requested.

### **3.4.5 Telecommunications**

Existing Telstra cables are present within Landfill Lane approximately 500 metres north of the development site. An offsite extension will be required to link this development with existing infrastructure. Appendix 3 of the Servicing Report contains the existing Telstra Network Plan.

### **3.4.6 Gas**

ATCO Gas has advised this site can be serviced via a connection to existing gas mains in Goulds Road. An offsite extension along Meru Tip Road and Landfill Lane would be required to link the development to existing medium pressure gas mains in Goulds Road.

ATCO Gas has modelled the potential gas demand in accordance with standard load allocations for industrial sites. To satisfy the ultimate demand, a new regulating valve set would be required on Goulds Road, south of the site. An initial stage of development will not be possible without this infrastructure upgrade.