

PART 2 – EXPLANATORY SECTION

1.0 SITE DESCRIPTION

1.1 LOCATION & PROPERTY DETAILS

Identified as Part Lot 1 & Lot 2 Flynn Drive on Certificate of Titles 1385/18 & 1434/718, the land holding measures approximately 98 hectares in area and is located approximately 5 kilometres northeast of the Joondalup Town Centre and 8 kilometres north of the Wanneroo Town Centre, near the intersection of Flynn Drive and Wanneroo Road (**refer Figure 1**).

1.2 EXISTING AND SURROUNDING LAND USES

The northern portion of the site contains an old limestone mining and resource recovery site which has been filled with inert fill under the management of Eclipse Resources. The balance of the site consists of remnant vegetation divided into manageable parcels by a series of interconnected strategic fire breaks (*refer Figure 2*).

Carramar Special Rural Estate (incorporating lots in the order of 1 to 2 hectares in area) abuts the southern and eastern boundaries of the site. Immediately east of Carramar is the extensive Banksia Grove Estate, currently being developed for residential purposes.

Wanneroo Road and a small amount of Rural land abuts the western boundary of the site, with Regional Open Space (ROS - Neerabup National Park) being located on the western side of Wanneroo Road, as well as to the northwest, on the opposite side of Flynn Drive. To the northeast is a quarry operated by Cockburn Cement, and the Neerabup Strategic Industrial Estate (Meridian Park) being developed by Landcorp.

1.3 PHYSICAL CHARACTERISTICS & ENVIRONMENTAL CONSIDERATIONS

The topography of the land is undulating varying in level from RL 72m along the northern boundary to RL's 36-38ms within the two lowest areas at the north-west and south-west corners. Existing slopes across the land are mostly gentle with less than 10% gradients.

The land contained a former limestone mining and recovery site which comprises a large portion of Lot 1. The quarry occupied an area of some 18 hectares and had previously been excavated to a floor level of 35 - 40m. The limestone extraction site has now been filled with inert fill, with restoration and landscape works converting the area into open space and a horse agistment area almost completed.

Ground conditions within the subject land generally comprise sand overlying, to various depths, Tamala limestone.

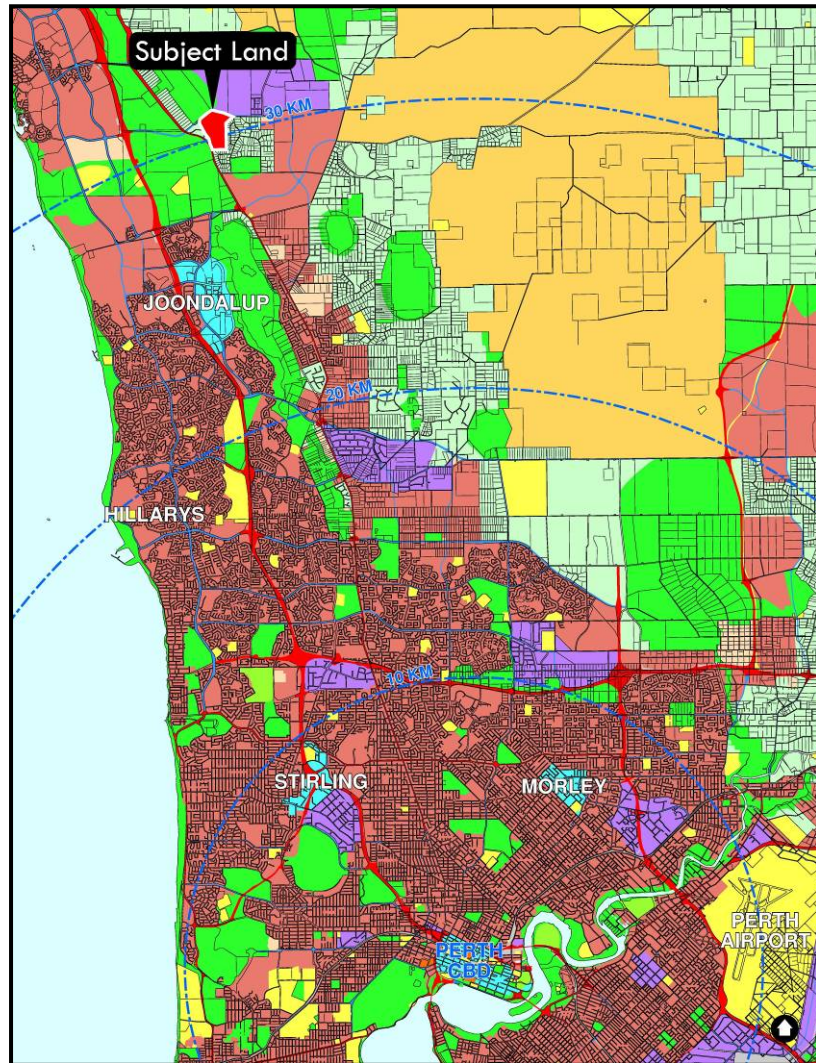


FIGURE 1: MRS LOCATION PLAN



FIGURE 2: ORTHOPHOTO

Although containing remnant vegetation, the subject land was not considered to be of sufficient quality or importance to be included within Bush Forever. An environmental examination of the site undertaken by RPS Bowman Bishaw Gorham in 1995 that concluded that no vegetation, fauna habitat or fauna are likely to be present on the site which do not also occur elsewhere in secure conservation reserves in the immediate locality.

A two stage spring survey was conducted in 2007 for Declared Rare Flora (DRF) and Threatened Ecological Communities (TEC's). The survey carried out in accordance with the Environmental Protection Authority's Guidance Statement No.51, Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in WA (June 2004).

The survey did not find any DRF or TEC's.

It should be noted that significant areas of bushland (in excess of 1000 hectares) located to the west and north of the subject land are however included in Bush Forever and preserved as Parks and Recreation Reserves. Bush Forever Site 385, the Neerabup National Park, is to the west of the site with Bush Forever Site 384 to the north, and reserved under the MRS for Parks and Recreation. The vegetation on-site is well represented within the adjacent Neerabup National Park and Yanchep National park. The fauna habitat of the site is represented within the above conservation reserves, as well as other reserves in the region, namely the Yellagonga Regional Park, the Gnangara Regional Park and the Moore River National Park.

2.0 STATUTORY AND STRATEGIC PLANNING CONSIDERATIONS

2.1 MRS ZONING

The majority of the site is zoned "Rural" in the Metropolitan Region Scheme (MRS). A small strip of land adjacent to Flynn Drive is reserved for "Other Regional Road" purposes, as part of the future connection between Old Yanchep Road and the future Mitchell Freeway extension.

It is a matter of history that the land is zoned Rural, however under current policy such land use if proposed today would be included in an urban zoning.

2.2 LOCAL AUTHORITY ZONING

The land is predominantly zoned "Special Residential Zone No. 5" in TPS 2, with an approximate area encompassing the quarry (based on the 1995 SGP), being reserved for "Parks and Recreation" . With respect to Flynn Drive, TPS 2 simply reflects the extent of the MRS Other Regional Road Reservation (*refer Zoning Plan*).

3.0 PLANNING PROPOSAL

3.1 PROJECT VISION AND RATIONALE

The subject land is extremely accessible and is located within easy reach of existing and proposed major district and regional infrastructure, being:

- Only 6 kilometres from the Joondalup Town Centre and associated public railway system which has recently been extended north to now be only 3km due west of the land;
- Is only 3 kilometres from the Clarkson Rail Station and will in the future have a very direct connection once Flynn Drive is extended westward;
- Adjacent to Wanneroo Road and Flynn Drive (Both Important Regional Roads offering excellent access to the wider metropolitan region);
- Within 8 kilometres of the Wanneroo Townsite and its associated infrastructure;
- Within 2 kilometres of the proposed Banksia Grove District Centre; and
- Adjacent to Neerabup Industrial Estate being the major regional employment area in the North West Corridor and currently being developed by Landcorp.

In recent times, State Government initiated studies including Network City have focused on the need to significantly improve the economic utilisation of land and infrastructure within the Metropolitan Region, which has led to community and stakeholder debate on urbanising additional land within the North West Corridor, and in particular land to the east of Wanneroo Road.

Arising from the current urbanisation of Banksia Grove, the pressure to urbanise further land to the east of Wanneroo Road, along with the current shortage of residential land across the Metropolitan Region is the growing interest and debate on whether the land lying between Banksia Grove and Wanneroo Road should also be utilised for urban usage.

Accepting that an improvement to the economic utilisation of land and infrastructure is logical and warranted, Eclipse Resources also recognise the need to have a balanced approach to development of the site, appreciating the views of adjoining neighbours. A recent survey of residents within the adjoining Carramar Estate indicates that although whilst some land owners are not in favour of urbanisation a clear majority support an eventual increase in density to the Estate which currently contains 1 to 2 ha allotments.

Having given due consideration to the many factors influencing future urbanisation of its land, Eclipse Resources have concluded that although “full urbanisation” of the site would no-doubt generate a considerably better financial return, from a sound visual, landscape and amenity aspect, a revised Special Residential development incorporating a more efficient design that continues to focus on the significant landscaped open space precinct would result in a better all round outcome for the precinct.

With this objective in mind, this Amendment seeks to:

- Amend the general Special Residential provisions of TPS 2 (*Section 3.19*) such that flexibility is included to allow variations to the 3,000m² average lot area requirements of the Scheme where identified on an approved Development Guide Plan or Local Structure Plan;
- To adopt a Local Structure Plan under Part 9 of TPS 2 (as opposed to a revised Development Guide Plan) that achieves improved land utilisation;

- Amend the specific provisions of TPS 2 relating to Special Residential Zone No. 5 (*Schedule 14*) such that it simply refers to the approved Structure Plan, which includes an updated list adopted pursuant to Part 9 of the Scheme; and
- Amend the *Scheme Map* to revise the boundary of the local “Parks and Recreation” reservation such that it reflects the Local Structure Plan.

The Local Structure Plan (*refer Figure 4 or A1 Plan at rear of report*), achieves a lot yield of 276 representing a far more sustainable outcome in terms of *efficient* utilisation of available service infrastructure, and generating additional catchment for the social and commercial infrastructure within the nearby Wanneroo District and Joondalup Strategic Regional Centres. The plan also provides for the *major landscaped* 18 hectare Recreation Equine Park and Open Space facility, plus other *additional* areas of Public Open Space.

With each lot exceeding the 2000m² minimum lot size requirement of TPS 2, not only are the lots capable of accommodating building envelopes, but they will also facilitate retention of a large amount of vegetation, particularly within the setback areas required to be adhered to in complying with relevant bushfire management criteria and Council’s standard building setbacks.

3.2 ACCESS

With respect to access, the Local Structure Plan maintains its primary entrance off the existing Flynn Drive approximately 250m north of the current intersection with Wanneroo Road.

Following the extension of the Flynn Drive “Other Regional Road” westward to connect into Wanneroo Road the north-south section of the existing Flynn Drive is planned to be terminated and form a cul-de-sac where it meets the newly constructed and upgraded “Other Regional Road.”

A secondary ingress/egress point is proposed in the north east corner of the site accessing onto Flynn Drive rather than the extremely busy Wanneroo Road. Consulting Traffic Engineers (Transcore) have reviewed the proposed location and are satisfied that it complies with Austroad sightline and intersection spacing requirements.

The design also makes provision for possible future connections to both the east and south into the Carramar Special Rural Zone, in order to maximise the number of fire escape routes in the event of an emergency, and establishes an appropriate framework for more intensive development of the locality should it become desirable in the future.

Internally, the street network remains highly interconnected, radiating out and facilitating easy pedestrian and vehicular access back towards the landscaped public open space area.

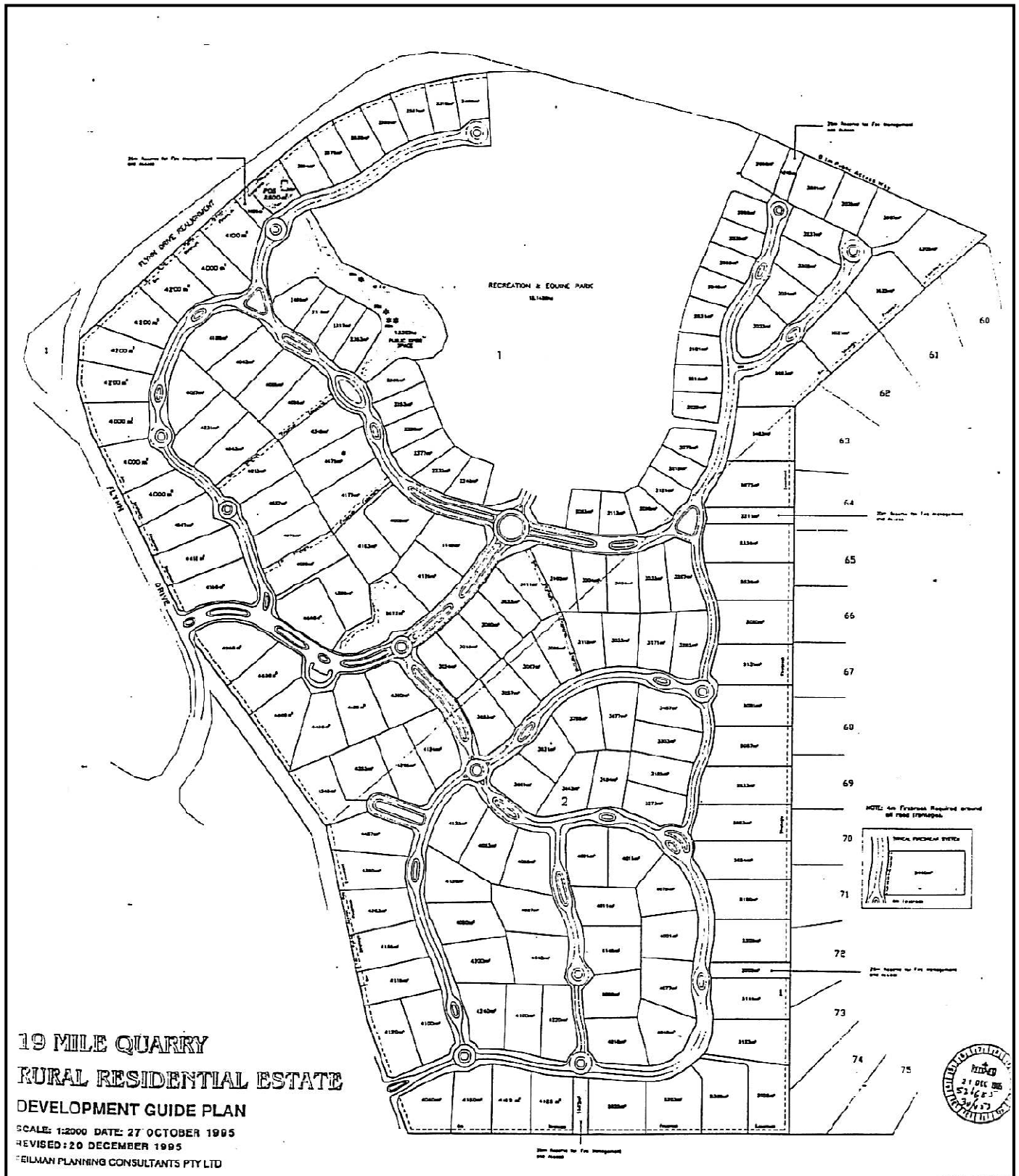


FIGURE 3: EXISTING SUBDIVISION GUIDE PLAN



FIGURE 4: PROPOSED LOCAL STRUCTURE PLAN

3.3 PUBLIC OPEN SPACE

In accordance with the existing MOU Eclipse Resources have almost finalised extensive rehabilitation and landscaping of some 18ha of the site incorporating the former limestone extraction site (and titled Recreation Equine Park and Open Space area on the revised plan) into a series of spaces, including an area for quality stabling facilities, and extensive flat grassed areas which can be utilised for gymkanas or formal sporting fields should Council so desire. Landscaping has utilised native and endemic species to the locality and results in the creation of a "show piece" for the district.

A bridle track is proposed to link around the estate, utilising land set aside for a dual use bridle trail/bush fire management track along the eastern and southern boundary of the site, and then utilising widened road reserves to link back to the large northern landscaped open space area containing the horse agistment facilities. Where not contained in the widened road reserves the bridle trails are to be located on land that legally forms part of the lot comprising the proposed Recreation Equine Park and Open Space site.

A legal agreement between the landowner and Council regarding ownership and management of the Recreation Equine Park and Open Space site and bridle trail system is being finalised and will be completed prior to the subdivision stage of development.

Additional public open space areas are proposed to accommodate the historic lime kilns, provide for visual and recreation amenity in addition to accommodating drainage facilities in the form of landscaped drainage swales. Notwithstanding there is no formal requirement for the provision of open space in Special Residential Estates, the area of land incorporated within the rehabilitated quarry and additional public open space areas incorporated in the Local Structure Plan are significantly larger than 10% of the total landholding.

3.4 FIRE MANAGEMENT

A bush fire hazard assessment was undertaken by FirePlan WA in August 2006. The assessment identified that the bush fire risk is manageable, provided that:

- Access points to the external road network are created generally in the locations depicted on the proposed Structure Plans;
- 5m wide firebreaks are provided along the southern and eastern boundaries of the site (along the alignment of the proposed bridle trails), with passing bays (6m wide by 12m long) every 200m and turnaround areas every 500m (using connections back onto the internal road network);
- Fire hydrants connected to the Water Corporation's reticulated water network are provided every 200m along the internal road system;
- Dwellings / Building Envelopes are setback a minimum of 20m from the adjoining Special Rural zone;
- Dwellings within the estate are designed and built to conform with Australian Standard 3959 – *Construction of Buildings in Bushfire Prone Areas*;
- Memorials are placed on the Certificate of Titles for each lot created advising landowners of the potential bush fire risk;

- Homeowners maintain a 20m wide 'building protection zone' around all buildings in order to reduce fire intensity close to dwellings and minimise the likelihood of flame contact with buildings; and
- Homeowners maintain the balance of the property as 'hazard separation zone' whereby fuel loads are maintained below 6 tonnes per hectare.

The design of the estate reflects the desirability and need to provide a road system that divides the estate into small discrete cells, bounded by roads, thus creating a very efficient strategic firebreak system. This strategic fire management strategy forms an integral part of the existing approved subdivision layout.

When combined with the fire management criteria listed above, this provides for a very effective bushfire management system, superior to the conventional approach (which has a reliance on individual firebreaks) and result in improved environmental and landscape outcomes.

FirePlan WA's advice has been strictly adhered to in the preparation of the revised Guide / Structure Plan for the estate.

4.0 ENGINEERING AND SERVICING REQUIREMENTS

Cossil & Webley Pty Ltd, Consulting Engineers have prepared a servicing report analysing the engineering aspects of the proposed development of the site. The conclusions of that report are discussed in the various sections below.

4.1 SITEWORKS

Over a period of time the quarry has been filled with inert material to provide a site for the proposed Recreation Equine Park and Open Space facility. The filling work has been carried out in accordance with an approved landfill and earthworks management plan for the land.

Elsewhere on the land, the siteworks for development of the proposed subdivision would be limited to only those works required for the roads, drainage and services. In all cases the extent of these works would be designed to ensure that it is the minimum to achieve the required design standards and to maximise the retention of existing vegetation.

As part of the proposed landfilling, the landowner has implemented a program of extensive landscaping to rehabilitate all disturbed areas and to provide attractive vegetated buffers along the boundaries with existing roads.

4.2 ACCESS & ROADS

Access to the proposed development will be via new subdivision roads connected to the existing Flynn Drive, at locations where sight distance, both horizontal and vertical meets required standards.

Flynn Drive is classified as an Other Regional Road in the MRS which includes a road reserve to accommodate the ultimate, future upgrading of the road to a four lane divided

standard. The MRS reserve includes a widening of the existing road reserve along the northern boundary of Lot 1 and the realignment of the existing reserve, west of this, to connect to Wanneroo Road north of the existing Flynn Drive intersection.

Following this realignment, in the future, the section of existing road along the western boundary of Lot 1 will be down graded to a residential standard cul-de-sac terminating where it meets the Flynn Drive "Other Regional Road."

The City of Wanneroo has programmed for construction of the above upgrading and realignment works for Flynn Drive, between Wanneroo Road and Tranquil Drive by mid 2009.

The existing Flynn Drive road connects to Wanneroo Road, north of Carramar Road and is a standard rural road with a wide bitumen sealed carriageway and shoulders. The existing road would provide good access to the proposed development for the short term prior to the realignment as per the MRS provisions.

All roads within the proposed subdivision will be designed and constructed to an urban standard with kerbs and piped road drainage. Design standards to be adopted for these roads are:-

- Neighbourhood Connector Roads
 - 18 metre reserve
 - 7.4 metre carriageway
- Access Streets
 - 15-16 metre reserve
 - 5.5-6 metre carriageway

In all cases the roads would be designed to maximise the retention of existing trees.

4.3 DRAINAGE

The drainage of roads will be via a system of gullies and underground pipes discharging to a series of infiltration swales and sumps located at low points throughout the development. The dispersion of the disposal sites, throughout the development and the method of disposal via infiltration, is in accordance with current Water Sensitive Design principles. Stormwater runoff from buildings, within the lots, will be contained within the lots and disposed of via soakwells.

4.4 WATER SUPPLY & SEWERAGE

The proposed development will be fully serviced with a reticulated water supply and sewerage service by the Water Corporation of WA (WCWA) who have already made provision for these facilities in its overall infrastructure planning.

Water supply will be provided via a reticulation system located within the subdivision roads, with a connection along Flynn Drive to a 600 millimetre diameter trunk watermain in Wanneroo Road. The trunk watermain has currently been extended from the south to service the Neerabup urban development at Clarkson Avenue. Further extensions northwards will be carried out by WCWA to meet development demand.

In general, sewerage will be provided via a gravity reticulation system connected to an existing 300 millimetre diameter sewer in Wanneroo Road south of Carramar Road. The connection will be via pumping stations located within the north-west and south-west corners of the site and a pressure main and gravity sewer in Wanneroo Road. WCWA will construct the pumping stations and rising mains to meet the requirements of the proposed development. The final size and shape of these pumping stations will be negotiated at the subdivision stage with the Water Corporation.

The proposed development is located within "Zone A" of WCWA's special headworks area for the north-west corridor. As a result special headworks charges would apply for all lots created as part of subdivision.

In the case of both water supply and sewerage, WCWA's planning to date caters for the subdivision of Lots 1 and 2 at up to an R20 density of development. The density of the current proposal is considerably less than this and can therefore be readily serviced by existing and proposed infrastructure works.

4.5 PUBLIC UTILITY SERVICES

The proposed development will be serviced with electricity, telephone and gas services and preliminary discussions have been held with Western Power, Telstra and Alinta to confirm the strategies for this.

Electricity supply will be provided via a connection from the existing 22kV line in Wanneroo Road with the on-site reticulation located underground, within the internal subdivision road reserves.

Telephone supply will be provided from either the existing optic fibre cables in Wanneroo Road or from the adjacent existing networks within the Carramar area. Reticulation within the development will be via underground cables located in the subdivision road reserves.

Natural gas supply can be provided from Alinta's high pressure gas pipeline in Flynn Drive, via an on-site reticulation system located within the subdivision road reserves.

4.6 KARST

A full Karst Survey was undertaken in 2007 using ground penetrating radar followed up with confirmatory drilling and an expert opinion from Mr Lex Bastion. Consistent with predictions no evidence of Karstic formations was found. There are no implications for drainage arising from the Karst Survey.

5.0 CONCLUSION

Support is now sought from the City of Wanneroo to adopt the Local Structure Plan for the estate based on the following grounds:

- The Local Structure Plan design significantly improves the land use efficiency of this strategically located and readily serviceable site without overly compromising the landscape quality of the locality;
- The Local Structure Plan remains in compliance with the 2,000m² minimum general lot area requirements of TPS 2 for Special Residential zoned land;
- The Local Structure Plan design provides for a more permeable and legible road system that regularises lot product such that development will readily be able to comply with the latest sustainability initiatives of planning and building regulations;
- The proposal conforms with the City's Smart Growth and Local Housing Strategy objectives by providing more efficient land utilisation and adding to the diversity of housing and lot product available in the locality; and
- The development will result in the creation of a substantial quality recreation facility and landscaped open space area that can be readily converted to a District Playing Fields facility should it be required in the future.