



ATTACHMENTS

Planning and Development Committee Meeting

04 February 2015

5.30pm

City of Albany Council Chambers

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Attachment 2 – Albany Local Planning Strategy Excerpts

Section 8.5.3 Industry

Section 8.5.3 Industry of the *Albany Local Planning Strategy 2010* (ALPS) sets the following strategic objective:

“Provide the necessary land and supporting infrastructure to maintain an adequate supply and range of serviced industrial land in appropriate locations.”

The ALPS expands on the matter of industry as follows:

“The ALPS identifies the Pendeen Industrial Estate as a significant site to support Albany’s General Industry land development requirements for the next 20 years. The ALPS supports its expansion to the north-west away from the proposed Menang Road heavy freight route”.

“Land-use planning plays an important role in protecting existing and potential mining operations. Significant sites such as the Willyung Hill rock quarry and Wellstead are identified in the ALPS. Refer to Maps 9A & 9B for details. Sites such as these will be protected in the LPS1 to allow for exploration or extraction that is compatible with the environment and surrounding land uses. Future sites of basic raw materials and mineral resources will be protected by consolidating urban and rural settlements and protecting priority and general agriculture areas from ad hoc subdivision and development”.

Section 8.5.5 Agriculture

Section 8.5.5 Agriculture of the ALPS sets the following Strategic Objective:

“Facilitate the protection of priority and general agriculture land from incompatible land use, developments and land-management practices.”

“The ALPS supports the retention and protection of General Agriculture areas because they contain land suitable for a wide range of activities including animal husbandry, grazing, cropping and tree farming. These General Agriculture areas make up the bulk of remaining rural areas that have not been identified for Priority Agriculture or other rural uses such as Rural Residential and Rural Small Holdings”.



Harley Dykstra

PLANNING & SURVEY SOLUTIONS

Amendment No.4

Lot 104 Rocky Crossing Road, Willyung

City of Albany Local Planning Scheme No.1

Prepared by Harley Dykstra Pty Ltd for Great Southern Sands

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PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME
CITY OF ALBANY

LOCAL PLANNING SCHEME NO.1

AMENDMENT NO.4

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

1. Designating an Additional Use Site over Lot 104 Rocky Crossing Road, Willyung including Additional Uses of Plant and Equipment Storage and Maintenance, Office (Incidental), Crushing, Mobile Asphalt Plant, and Storage of Building/Construction Materials/Products on Lot 104 Rocky Crossing Road, Willyung and amending the Scheme Maps accordingly; and
2. Amending Schedule 2 - Additional Uses to incorporate provisions relating to Lot 104 Rocky Crossing Road, Willyung (AU31).

Dated this _____ day of _____ 20____ .

CHIEF EXECUTIVE OFFICER

DOCUMENT CONTROL

Control Version	DATE	Status	Distribution	Comment
A	05.06.2014	Draft	Internal	Draft for Comment and Review
B	30.06.2014	Draft	Client	Draft for Comment and Approval
C	05.08.2014	Draft	Client and City of Albany	Final for Client Approval and Draft for City of Albany Comment
D	16.10.2014	Final	Client and City of Albany	Final for Lodgement with City of Albany
E	16.01.2015	Final	Client and City of Albany	Amendments to Resolution requested by City of Albany

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Version: E

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MINISTER FOR PLANNING

PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

LOCAL AUTHORITY:	CITY OF ALBANY
DESCRIPTION OF TOWN	
PLANNING SCHEME:	LOCAL PLANNING SCHEME NO.1
TYPE OF SCHEME:	DISTRICT PLANNING SCHEME
NO. OF AMENDMENT:	AMENDMENT NO.4

INCLUDING ADDITIONAL USES OF PLANT AND EQUIPMENT STORAGE AND MAINTENANCE, OFFICE (INCIDENTAL), CRUSHING, MOBILE ASPHALT PLANT AND STORAGE OF BUILDING/CONSTRUCTION MATERIAL/PRODUCTS AND INCLUDING PROVISIONS RELATING TO ADDITIONAL USE SITE NO.31 IN SCHEDULE 2 OF THE SCHEME TEXT.

1 INTRODUCTION

The purpose of this Amendment to the City of Albany Local Planning Scheme No.1 (LPS 1) is to include Lot 104 Rocky Crossing Road, Willyung within Schedule 2 of the City of Albany LPS 1 as Additional Use Site No.31. It is proposed to include the following Additional Uses as discretionary land uses:

- Plant and equipment storage and maintenance;
- Office (Incidental);
- Crushing;
- Mobile Asphalt Plant; and
- Storage of building/construction material/products.

The proposed additional uses will enable Great Southern Sands (landowner) to expand its activities on the site to include the storage and maintenance of all its own plant and equipment, and the crushing and recycling construction materials to create useable road/building products. The site is currently used for an approved extractive industry, of which the proposed development is complementary. It is proposed that the Additional Use special scheme provisions will reference a Development Guide Plan for the site incorporating the following:

- Construction of workshop approximately 2,400m² in area with concrete apron of same area adjoining the workshop;
- Construction of a site office approximately 200m² in area;

- Establishment of laydown areas, which will be used for the parking of commercial vehicles and associated attachments, as well as the storage of materials associated with the GSS group of companies (i.e. sand, road base, etc); and
- A receipt point and crushing area for Waste Building Materials (non-Abestos)(concrete, bricks, etc);

It is intended for the proposed development to complement the existing services offered by GSS and the approved extractive industry currently occurring on the Amendment Site.

This proposal has sound planning grounds, as justified by the following:

- The subject site is already used for extractive industry, the subsequent additional uses will complement and add to the services available on the site;
- The site is well screened and separated from surrounding residential dwellings. Additional screening will be planted to reduce the visual impact of development on the rural landscape;
- The site and its proposed land uses complement the existing uses of the Rocky Crossing Road quarry (Holcim);
- The site is readily accessible to Rocky Crossing Road, which has access to Menang Drive, a heavy haulage route. This will allow the easy distribution of materials to and from the subject site with little hindrance; and
- The location of the site is sufficiently close to the Albany urban area, whilst being sufficiently distanced to ensure incompatible land uses are not impacted by the proposed land uses.

The proposed additional uses for Lot 104 Rocky Crossing Road, Willyung are logical, given the context of the existing use of the subject site for extractive industry, the surrounding development and location of the site adjacent to Menang Drive. It is respectfully requested that Amendment No.4 to the City of Albany Local Planning Scheme No.1 to include Additional Use Site No.31 is approved.

2 SUBJECT SITE DETAILS

2.1 Location

The subject site comprises Lot 104 Rocky Crossing Road, Willyung. The total area of the subject site is 46.8ha. The subject site is 11.3km from the Albany CBD via Chester Pass Road or 12km via Albany Highway.

For a location plan, refer to **Figure 1**.

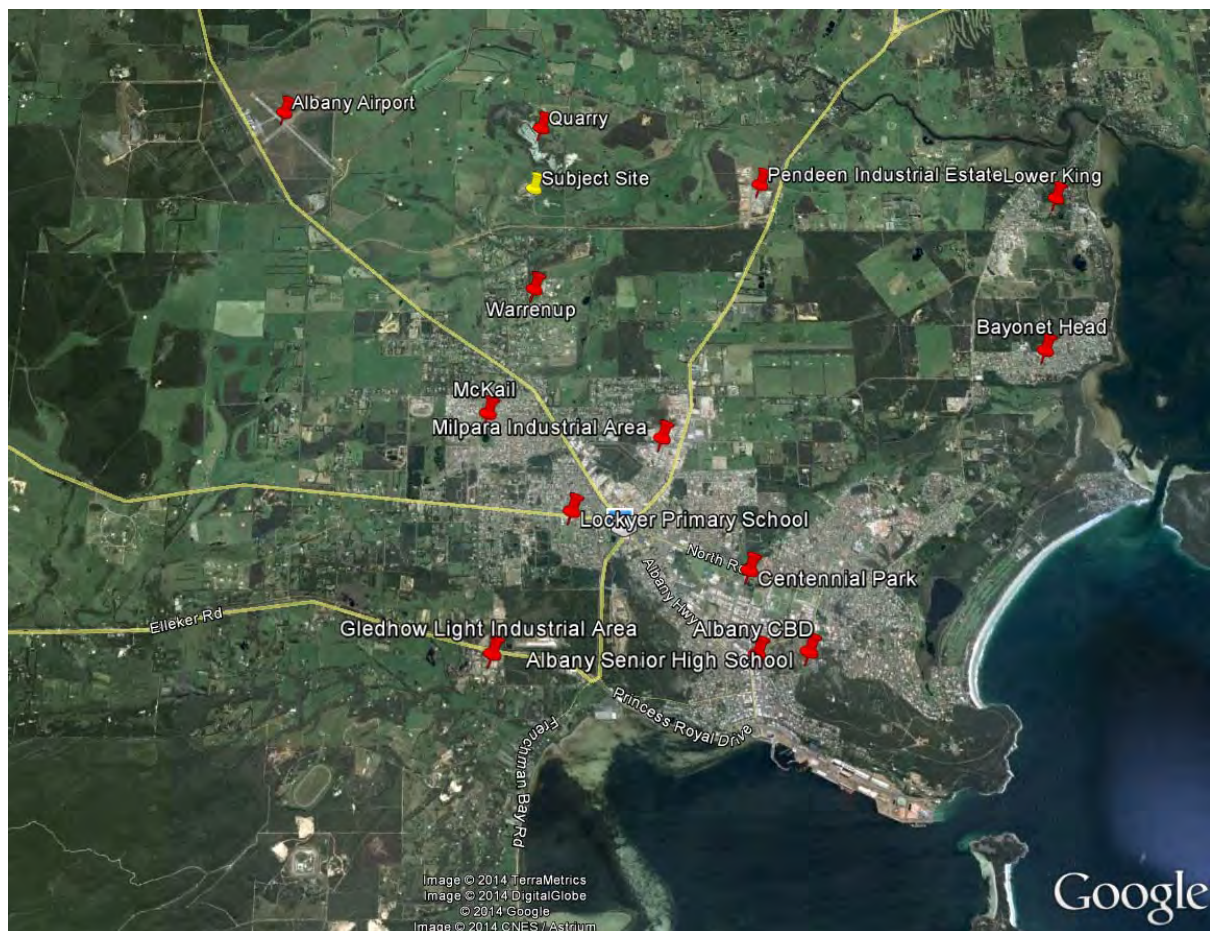


Figure 1: Location Plan

[Source: Google Earth]

2.2 Land Ownership

The registered proprietor of the subject site is Achilles Pty Ltd, with the legal description of the land being Lot 104 on Deposited Plan 49239. **Appendix A** provides the Certificate of Title applicable to the Amendment. The landowner is associated with the GSS group of companies.

2.3 Planning Classification of the Subject Site

The subject site is zoned *General Agriculture* by the City of Albany Local Planning Scheme No.1, as shown on an excerpt of Scheme Maps included in **Figure 2** below.

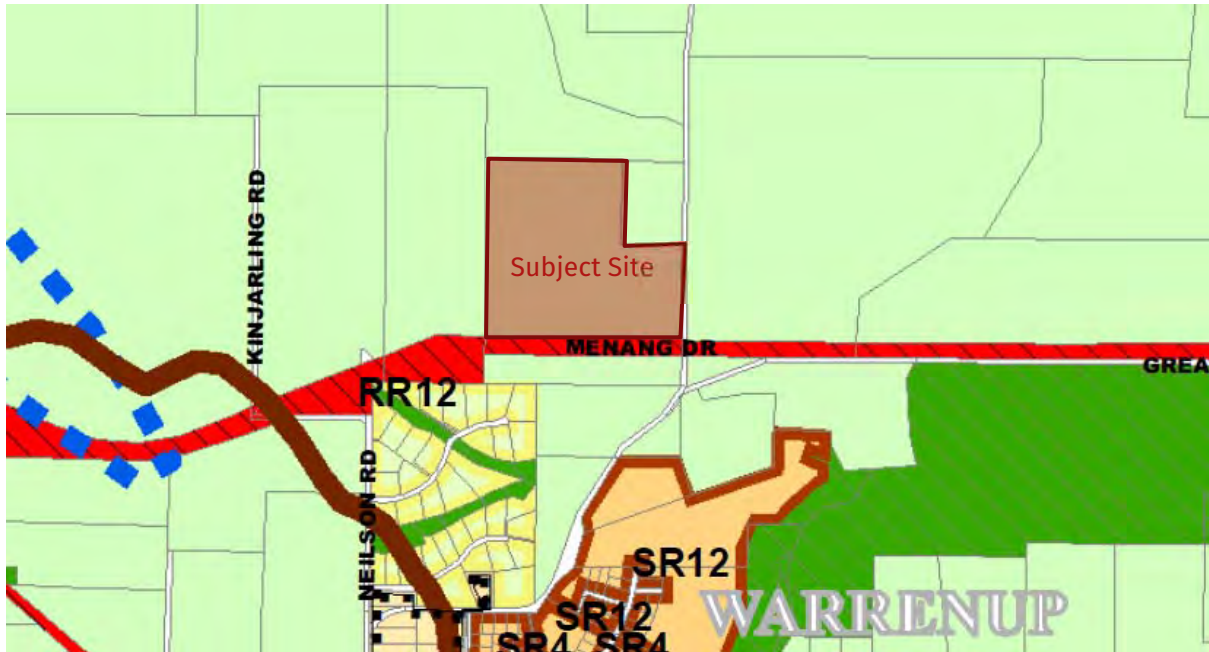


Figure 2: Excerpt from City of Albany Local Planning Scheme No.1 maps, showing the subject site.

The subject site is currently classified as *General Agriculture* by the Albany Local Planning Strategy (ALPS), as shown on an excerpt of Map 9B in **Figure 3** below. **Figure 3** below shows the Rocky Crossing Road quarry and its associated buffer being located directly to the north of the subject site.

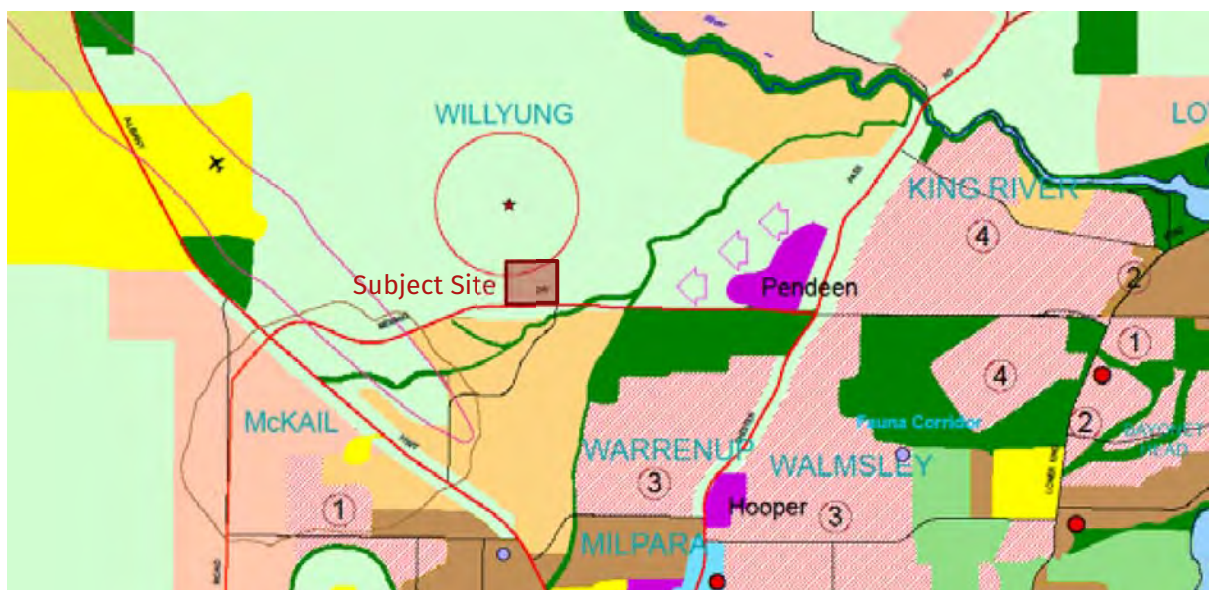


Figure 3: Excerpt from Map 9B of ALPS, showing the location of the subject site.

2.4 Land Use

The subject site and surrounds are zoned *General Agriculture* by the City of Albany Local Planning Scheme No.1. The subject site is currently majority cleared and used for approved extractive industry uses. Furthermore, limited grazing of stock is undertaken to keep pastures maintained across the subject site. The Site Plan at **Appendix B** provides an aerial photograph of the subject site, as well as surrounding residences and their separation to the proposed crushing area.

Located in the area to the north of Menang Drive are agricultural land uses, as well as the nearby Holcim Quarry on Mount Willyung. The predominant agricultural uses in the area are grazing of cattle.

Located to the south of Menang Drive are a mix of agricultural and rural residential land uses. As shown on the Albany Local Planning Strategy Map 9B Urban, it is likely that the rural residential uses will continue to develop in the area, with a buffer of agricultural land located directly adjacent to Menang Drive. The purpose of this buffer is to accommodate vehicle noise from the heavy haulage route. Earth bunds have also been incorporated on the southern side of the road to provide a buffer to vehicle noise.

As shown on the Development Guide Plan, although the majority of surrounding land uses are agricultural by nature, distances to the nearest residences have been highlighted from the proposed crushing area. The purpose of highlighting the residences is to demonstrate that there is sufficient separation from residences to the proposed crushing area, particularly given the low number of uses per year it is likely to have (3-4 days).

2.5 Physical Attributes

2.5.1 Topography

The subject site consists of undulating farmland comprising extractive industry. The dominant features of the subject site are:

- A ridgeline with a small hillock in the central western portion of the subject site, with the northern portions of the ridgeline forming the lower slopes of Mount Willyung;
- Mostly eastern facing slopes sloping down to Rocky Crossing Road, with a small portion of the site sloping south (south west corner) and west (north west corner);

Although not depicted by the contours shown on the plans provided by this Amendment, Menang Drive has a significant cut adjacent to the southwest corner of the subject site. Screening vegetation within Menang Drive also provides some visual screening of the site when travelling from west to east on Menang Drive.

The topography of the subject site is well suited to the proposal, ensuring it can be well screened from surrounding land uses and there is minimal impact on the perceived agricultural landscape in the locality. A major feature in the landscape will still be Mount Willyung and the Holcim Quarry.

2.5.2 Flora and Fauna

The majority of the subject site is under pasture, or forms extractive industry, hence being cleared of remnant vegetation. There is a stand of remnant vegetation located in the southwestern corner of the subject site. Further vegetation clearing on the subject site is not proposed as a result of the proposal and would be subject to appropriate approvals being sought.

2.6 Hydrology and Drainage

The subject site does not contain any permanent surface water flows. During winter, the west-east valley does have some surface water flows. Shallow groundwater of the subject site is located in two areas, being the northwestern corner (with associated soak/small wet area) and in the west-east valley. The proponent has advised the following in relation to the subject site:

- The northwestern soak has a finite source and is not part of the larger aquifer system (which reduce water flows in summer months); and
- There are some perched groundwater tables throughout the subject site.

3 Details of the Proposal

The primary purpose of the proposed amendment is to allow the GSS group of companies to expand the activities on the site to include the storage and maintenance of all its own plant and equipment. Secondly, it will allow the occasional crushing and recycling of construction materials to create useable road/building products (subject to approval from the Department of Environmental Regulation). The operations proposed to be undertaken on the subject site include:

- **Workshop** – The workshop is proposed to be used for the servicing and maintenance of the GSS group of companies vehicle fleet. This use falls within the definition of *Motor Vehicle/Boat Repair* of LPS 1, but the use will be limited to the repair of motor vehicles associated with the GSS group of companies.
- **Office** – The incidental office will be the logistical base of the operation of the GSS group of companies, as well as any other administration tasks associated with the operation of the business. This falls within the definition of *Office* of LPS 1.
- **Machine Washdown Bay** – This area will be used for the cleaning of vehicles used by the GSS group of companies. All run-off from the area will be treated and disposed of appropriately as detailed in this document. This use falls within the definition of *Motor Vehicle Wash* of LPS 1.
- **Receipt Point for Non-Asbestos Containing Materials (Non-ACM)** – A small area will be constructed as a receipt point for Non-ACM materials. This area is likely to be in close proximity to the proposed crushing area, with the location to be finalised. These materials typically include concrete, bricks and other inert wastes (soil, clay, etc). These will be crushed in the proposed crushing area and recycled into useable products such as road base, which has a significant benefit in reducing the volume of these products being disposed of in landfill. A definition for this use is not contained within LPS 1, however, the use is appropriately limited by the provisions relating to Additional Use Site No.31.
- **Proposed Crushing Area and Mobile Asphalt Plant** – As depicted on the Development Guide Plan, it is proposed to have a crushing area and mobile asphalt plant located in the northwestern corner of the subject site. The crushing use will be used for the crushing of Non-ACM materials. The below table specifies the current volume of materials received at the GSS group of companies John Street premises as well as the maximum capacity that could be accommodated.

Current and Maximum Capacity of Receipts	<i>Tonnes/Annum Received</i>	<i>Current</i>	<i>Maximum Capacity/Annum</i>
<i>Concrete Receipts</i>	1,000 tonnes		5,000 tonnes
<i>Inert Waste (Soil, Clay, etc)</i>	1,000 tonnes		5,000 tonnes
<i>Steel Products</i>	10 tonnes		100 tonnes
Note: Steel receipts consist only of re-inforcing bars in recycled concrete and occasional steel			

products recovered during green waste collection.

A definition for the above use is not contained within LPS 1, however, this use will be limited by the provisions applicable to Additional Use Site No.31. In this area, it is also proposed to install a mobile asphalt plant to supply the GSS group of companies. The footprint of the plant is approximately 200m² and it will be appropriately screened from surrounding residences.

- Laydown/Hardstand Areas – The laydown/hardstand areas will be utilized for the parking of commercial vehicles (transport depot) and associated attachments of the GSS group of companies, which falls within the definition of *Transport Depot* of the LPS 1. In addition to the parking of commercial vehicles, this area will also be utilized for the storage of materials associated with the GSS group of companies, including, but not limited to sand, gravel, road base and similar construction materials. This use is defined as *Storage* by LPS 1.

The proponent has advised that receipt of Non-ACM materials, as well as proposed crushing operations and mobile asphalt plant will require licensing from the Department of Environment Regulation (DER). All of the above uses are additional to that which would normally be approved in the *General Agriculture* zone, hence the requirement to undertake an amendment to LPS 1.

4 Planning, Environmental and Servicing Considerations

4.1 Statutory and Strategic Planning Environment

4.1.1 State and Regional Planning

Applicable State Planning Policies are SPP1 – “State Planning Framework Policy (variation No.2), SPP2.5 “Land Use Planning in Rural Areas” and SPP4.1 “State Industrial Buffer Policy”. No applicable Development Control Policies apply.

State Planning Policy No.1 – State Planning Framework Policy

The proposed amendment is consistent with the objectives of SPP 1, as evidenced by the following:

- The proposal seeks to amend LPS 1 to include Additional Use Site No.31, as the proposed uses cannot be accommodated on existing land within Albany and due to the strategic location of the subject site;
- It will provide a site specific development opportunity for a valued business in the greater Albany area, expanding its current operations on the site with complimentary uses; and
- The proposal examines the land use context and justifies the proposal accordingly.

State Planning Policy No.2.5 – Land Use Planning in Rural Areas

SPP 2.5 provides the overarching objectives and policy statements for land use planning for rural and rural settlement development. The proposed amendment complies with the requirements of SPP2.5, as outlined by the following points:

- The land is not identified as *Priority Agriculture* by the Albany Local Planning Strategy nor is zoned *Priority Agriculture* by LPS 1. Therefore, the proposed development will not impact on land considered to be of priority for the continuation of agricultural land use;
- The proposal does not seek to discontinue rural uses on the majority of the subject site. It will introduce uses that are complimentary to the existing extractive industry use of the site;
- The proposal plans for the use of rural land through this amendment and the inclusion of Additional Use Site No.31 in LPS 1, rather than proposing ad-hoc development approvals to be considered under the current zoning of the land;
- The proposal seeks to promote regional development through the allocation of a suitably located and sized parcel of land for the GSS group of companies, so that the business can continue to develop without hindrance from ongoing residential encroachment, as is the case at its current John Street premises;
- The proposed development seeks to minimize land use conflicts by co-locating with similar uses (i.e. the Holcim Quarry) and well as demonstrating sufficient setbacks to surrounding residences; and
- The proposed development seeks to manage all impacts and protect the environment, as is outlined within this report.

The proposal complies with the requirements of SPP2.5 and will result in a well-managed development on rural land.

State Planning Policy No.4.1 – State Industrial Buffer Policy

The purpose of SPP4.1 is to provide a consistent approach to protecting industrial land uses, whilst also ensuring the rights of those surrounding uses are not impinged by residual impacts. This policy generally relates to large proposals for industrial type development, but also relates to extractive industry and the like.

When considering proposals to amend the local planning scheme, the local government must have due consideration to SPP4.1, as outlined in Section 1.3 of the Policy.

As shown on the Site Plan and depicted on the Development Guide Plan, and by measures also enacted by this document, the proposal takes consideration of nearby land uses and seeks to ensure these uses are not impacted by future development on the subject site. Measures include:

- The location of the proposed crushing area and mobile asphalt plant in the northwest corner of the subject site, which is advantageous due to the presence of remnant vegetation and topography which will reduce off-site impacts. This area also provides the greatest separation to nearby existing land uses;
- The Site Plan and Development Guide Plan depict the nearest nearby residences. The minimum separation from the crushing area will be 350m;
- The crushing use on the land is a minor use and will likely only operate on 3 – 4 days per year during daylight hours;
- All other uses on the subject site would not be considered to have a high level of impact on surrounding land uses; and
- The area for crushing and the mobile asphalt plant depicted on the Development Guide Plan will be subject to separate approval by the Department of Environment Regulation. Any further buffering mechanisms can be formally assessed by this department during the application process.

The proposed amendment seeks to ensure nearby land uses experience minimal impact as a result of the proposed operations on the subject site. At the time of assessment, the Department of Environment Regulation can ensure that suitable buffering mechanisms can be incorporated for any proposed crushing activities on the subject site. If these requirements are not met, approval for these uses would not be forthcoming.

Environmental Protection Authority Guidance Statement No.3 – Separation Distances between Industrial and Sensitive Land Uses (EPA Guidance Statement No.3)

The EPA's Guidance Statement No.3 outlines the requirements for separation distances between industrial and sensitive land uses and outlines generic separation distances for land use types that would be considered to produce industrial emissions, which include noise, noxious gases, light, odour and other emissions.

Appendix 1 of the Guidance Statement quantifies the separation distances required. For the “Crushing of building material” industry, the recommended generic buffer distance is stated as 1000m. However, it is important to note that each of these cases can be judged on a case by case basis.

As has been previously explained in this document the use of crushing and the mobile asphalt plant will be subject to the approval of the appropriate government agencies. Compliance with the requirements of these agencies negates the need for emissions of the future development to be assessed at this time. If compliance with criteria cannot be met, it will be the responsibility of these agencies to impose conditions limiting or reducing impact.

4.1.2 Local Planning

City of Albany Local Planning Scheme No.1

Under the City of Albany Local Planning Scheme No. 1 (LPS 1), the subject site is zoned *General Agriculture*. The objectives of the *General Agriculture* zone listed in Clause 4.2.20 of LPS 1 are:

- “(a) Provide for the sustainable use of land for agricultural and rural activities;*
- (b) Support complementary land uses where those land uses do not detract from adjoining agricultural and rural activities and are compatible with the character and amenity of the area;*
- (c) Prevent land uses and development within the zone that may adversely impact on the continued use of the zone for agricultural and rural purposes;*
- (d) Provide for value-adding opportunities to agricultural and rural products on-site; and*
- (e) Provide for tourism experiences where those development do not impact upon adjoining agricultural and rural land uses.”*

The proposed amendment to LPS 1 seeks to include an Additional Use site, to expand and accommodate the proposed activities of the GSS group of companies. However, the proposal seeks to ensure the intent of the zone is not compromised, as evidenced by the following:

- The purpose of the proposed amendment is not to remove the agricultural uses of the land. It seeks to add uses to that land, which in a strategic context appear suitable for the subject site. The land not impacted by the additional uses (which cover approximately 20 percent of the subject site), which will continue to be used for agricultural purposes, currently consisting of grazing of stock;
- As has been explained throughout this document, the proposed additional uses do not seek to detract from the rural landscape or conflict with agricultural land uses. This is achieved through the use of the Development Guide Plan to appropriately locate development on the site, the use of screening and separation distances to achieve

buffering and the uses proposed, which complement the existing approved extractive industry uses;

- The subject site is already an approved extractive industry site. Furthermore, the subject site is included within the buffer of the Rocky Crossing Road quarry, located adjacent to a heavy haulage route and suitably separated from surrounding residences; and
- Screening and the like have been incorporated to ensure the rural landscape is not impacted by the proposed development.

As indicated throughout this document, it is proposed to identify the subject site *Additional Uses* with LPS 1. Clause 4.5 states the following in relation to the *Additional Uses* category:

“Despite anything contained in the Zoning Table, the land specified in Schedule 2 may be used for the specific use or uses that are listed in addition to any uses permissible in the zone in which the land is situated subject to the conditions set out in Schedule 2 with respect to that land.”

Note: An additional use is a land use that is permitted on a specific portion of land in addition to the uses already permissible in that zone that applies to the land.”

The purpose of the proposed to LPS 1 is to include Additional Use Site No.31 within the scheme, applicable to Lot 104 Rocky Crossing Road, Willyung, with the additional uses of:

- Plant and equipment storage and maintenance;
- Office (Incidental);
- Crushing;
- Mobile Asphalt Plant; and
- Storage of building/construction material/products.

Under the current zoning of the land, these uses would not be permissible. However, support is sought for these additional uses to be applicable to the subject site based on the individual merits of the proposal. All uses will be adequately controlled and guided by the Development Guide Plan and applicable provisions for Additional Uses Site No.31.

Albany Local Planning Strategy

The subject land is currently classified by ALPS as *General Agriculture*. The planning objectives of the *General Agriculture* land use classification included in Section 5.5.1 and 8.5.5 of ALPS are:

“Identify and protect rural land of State and regional significance as Priority Agricultural land and the balance of rural land that is not priority agriculture or identified for closer settlement as General Agricultural.”

“Facilitate the protection of priority and general agriculture land from incompatible land use, developments and land management practices.”

The above statement is also supported by the following action with ALPS:

“Identify Priority and General Agriculture zones, objectives, land-use classes and development standards in the LPS 1 to protect and promote agricultural uses and prevent non-compatible uses and developments, including settlements, being established that will impact adversely on agricultural uses.”

The proposed amendment does not seek to discontinue the use of the land for agricultural purposes, as they will still be maintained. However, it does seek to include additional uses which will see the land utilised in a manner that complements the extractive industry approved on the subject site.

When considering the strategic relevance of the proposal, the following factors should be taken into consideration:

- The site is located in close proximity to the Rocky Crossing Road quarry;
- The subject site is easily accessible from Rocky Crossing Road, which connects directly to Menang Drive. This is one of the main heavy haulage routes in the Albany urban area and provides good access to the main arterial routes entering Albany, being Chester Pass Road and Albany Highway; and
- The total development area for the proposed additional uses will be approximately 20 percent of the total site area as depicted on the Development Guide Plan.

4.1.3 Conclusion

The proposed amendment does not seek to change the use of the land, but incorporate additional uses on this appropriate site. The use of the land for agriculture and associated activities will still occur as a result of the proposed amendment, therefore it is believed the proposed amendment is compliant with ALPS.

4.2 Environmental Considerations

4.2.1 Land Capability for Development

The majority of the proposed development will be for laydown/hardstand purposes. These will be constructed of gravel, with drainage being directed into existing dams for settling.

At this time, the only physical buildings proposed on the subject site are the workshop and office. Soil types of the subject site relating to these buildings are considered suitable. As previously outlined, the proponent has advised that the subject site does have some shallow groundwater flows, but these are associated with the northwestern corner of the site and the west-east valley, which will not be impacted by the proposed development. Measures, such as drainage attenuation, and settling ponds will be incorporated to ensure ground and surface water is not impacted.

It is considered that the subject site is suitably capable of supporting future development as depicted on the Development Guide Plan. All areas considered of low capability or having groundwater close to the surface have been excluded from the proposed development.

4.2.2 Environmental Emissions/Outputs

Dust

As shown on the Development Guide Plan, it is proposed to seal the access road connecting the office/workshop carpark to Rocky Crossing Road. However, dust may be generated from other vehicle movements around the subject site, given all other roads are proposed to be constructed of gravel. The GSS group of companies has overcome this problem at its John Street headquarters by a combination of two methods, being:

- Application/incorporation of dust ameliorants on all gravel roads and surfaces; and
- Regular watering with water cart to suppress dust.

Given the relative separation of the subject site from surrounding land uses and residential premises, it is not anticipated that dust generated from vehicle movement will have any significant impact. The GSS group of companies owns multiple water carts, therefore any situation where dust from gravel surfaces or activities becomes an issue can be resolved quickly.

Noise

Noise is anticipated to be generated by the proposed land uses. These are likely to be from the following sources:

- Workshop;
- Machinery and Vehicle Movement; and
- Crushing and Mobile Asphalt Plant.

Noise from the workshop, machinery and vehicle movement around the site and the mobile asphalt plant is anticipated to be minimal and would be similar to that undertaken in agricultural areas as a result of farm practices and management.

Therefore, the likely noise generating activities will be located in the Crushing Area. The crushing of demolition products will occur via a horizontal shaft impactor, which does have the potential to generate high levels of noise. As has been demonstrated throughout this document, the crushing use is likely to be conducted sparingly (3 – 4 days per year) during daylight hours. Furthermore, the use of the crusher will require the separate approval of the Department of Environment Regulation, which will impose conditions and minimum requirements on its use to ensure that impact on nearby/neighbouring land uses is limited.

Effluent

Effluent disposal for the proposed development will be on-site, given a lack of ability to connect to a reticulated sewer network or similar, and given the type of effluent produced. These two sources of effluent will be:

- Workshop & Office – Effluent from these uses will be treated and disposed of using an Alternative Treatment Unit or similar by a licensed installer. The location and type of

device will be subject to the approval of the Health Department of Western Australia and the City of Albany;

- Machinery Washdown Bay – an effluent system will be installed that has the ability to trap oily wastes for separate disposal. The oil trap will be required to be of sufficient capacity to allow the settling of any oily emulsions derived from greases, oils and other hydrocarbons that collect on the outside of plant and machinery. Once treated, the resulting waste water will be disposed of within the stormwater retention pond utilising plantings of rushes, sedges and screening vegetation. The biodegradable nature of the detergents will reduce any potential impacts considerably.

Stormwater

Rainwater from rooftops will be harvested for potable water supply and stored on-site to the City of Albany requirements. All other stormwater generated on-site will be directed to dams, swales and stormwater retention ponds and away from any natural water flows of the site. As is normal requirement, the applicant may be required to provide a Drainage/Stormwater Management Plan to the City of Albany at the time of Planning Scheme Consent.

Hydrocarbons

As associated with most modern workshops, there is a presence of hydrocarbons and other associated chemicals used in vehicles. It is proposed that waste products from the workshop are captured within a purpose-built 'EVAC' system. The waste captured in this system will be removed at regular intervals by a contractor and disposed of accordingly.

4.2.3 Buffers to Surrounding Land Use

Agriculture

As shown on the Development Guide Plan and Site Plan for the subject site, distances to surrounding residences in the *General Agriculture* zone are depicted. The distance of closest residence to the proposed crushing area is 350 metres. This and another residence are located on the opposite side of the ridgeline to the proposed crushing area, as well as having a substantial buffer of remnant vegetation, which affords some noise buffering.

All other dwellings on *General Agriculture* zoned land are located in excess of 500 metres from the proposed crushing area. The location of the proposed crushing uses has been carefully chosen to utilise the remnant vegetation and topography of the subject site, to ensure impacts on sensitive land uses are minimized.

When assessing the buffers to agricultural land uses, it is also important to consider the context of the use and the location. The use of the crushing area for crushing purposes is only likely to occur on 3 – 4 days per year. Furthermore, the properties within closest proximity to the crushing use are also located within close proximity to the quarry on Rocky Crossing Road, which is likely to have a

substantially greater impact on the amenity of the locality. Furthermore, approval for the use will be required from the Department of Environment Regulation.

Rural Residential

Rural Residential Area No.12 is located to the south of Menang Drive, being buffered by a strip of *General Agriculture* zoned land. The following distances to the proposed development and nearest residence within Rural Residential Area No.12 are proposed:

- Approximately 480m to proposed workshop; and
- Approximately 780m to proposed crushing area.

Due to the topography of the subject site, additional buffering will be offered by the presence of the small hillock and remnant vegetation, which form a direct barrier between the proposed crushing area and Rural Residential Area No.12. Noise levels from the proposed workshop are not considered to be excessive, and would be associated with the use of rattle guns and other similar compressed air machinery. This is not dissimilar to many agricultural properties in the greater Albany area which would have similar equipment used for servicing vehicles in sheds.

The impact of the proposed development on Rural Residential Area No.12 is likely to be negligible, given the topography of the land, setback of development, presence of Menang Drive and other factors.

4.2.4 Fire Management

A Fire Management Plan has not been prepared as part of the Amendment documentation. As shown on the Development Guide Plan and Site Plan, the subject site is predominantly cleared, with some scattered remnant trees and parkland cleared/grazed bushland, lending the site to having a low bushfire hazard rating. Furthermore, all buildings are setback in excess of remnant vegetation on the site, nor will be permanently occupied for residential purposes. As such, the usefulness of any Fire Management Plan is negated. In accordance with the requirements of the City of Albany, fire management of the site will be undertaken in accordance with the annual City of Albany Fire Management Requirements brochure.

4.2.5 Visual Landscape

The subject site can be described as an 'Undulating Rural Landscape' by *Visual Landscape Planning in Western Australia*. It contains natural features such as undulating terrain, a ridgeline and wide valley, with scattered remnant vegetation.

Visual Landscape Planning in Western Australia suggests the following principles and guidelines be applied when planning for development within the 'Undulating Rural Landscape':

- *"Retain remnant vegetation throughout the landscape.*
- *Ensure that structures are not located on the skyline as seen from important viewing locations.*

- *Revegetate cleared ridgelines, to maintain the sense of elevation of these features that becomes diminished when vegetation is lost.*
- *Valued views should be maintained by not siting buildings in locations that are prominent in views, for example, at focal points or from panoramic lookout points.*
- *View corridors should be maintained to important elements in views, such as a vista to a scarp, and not inadvertently screened by buildings, dense roadside planting or plantations.”*

Future development of the subject site seeks to protect the visual elements of the site by:

- Retaining remnant vegetation throughout the site;
- Providing for visual screening fronting Menang Drive and Rocky Crossing Road to screen proposed development; and
- Ensuring development is not located on prominent ridgelines. Where development is proposed to be on the side of ridgelines, it is located lower than the high point of the ridgeline and has vegetation which also provides a visual offset, meaning the development is not the prominent aspect in the landscape;

It is believed that the Amendment and future development will be sensitive to the landscape and respond with appropriate visual form.

4.3 Servicing Considerations

4.3.1 Access

External Access

Access to the subject site will be from Rocky Crossing Road via the existing crossover. This crossover has good sight lines and will be sealed and upgraded to the specifications of the City of Albany to service the proposed development. Following a site visit of the City of Albany officers, it was determined that the applicant may have to contribute to the upgrade of the section of Rocky Crossing Road from the driveway entrance to the site to the intersection with Menang Drive, which has been included in the conditions applicable to the proposed development.

No direct access to Menang Drive will be permitted as a result of the proposed development.

Traffic Management and Vehicle Load on Road Network

The maximum number of heavy vehicles to be stored on the premises at any time is estimated to be twenty (20) at this time, plus associated attachments and equipment. In addition to employees entering and exiting the site, this is likely to equate to an average of 80 vehicle movements per day.

Rocky Crossing Road is of a suitable capacity to handle the proposed vehicle movements. Furthermore, it should be considered that when designing the intersection of Rocky Crossing Road

and Menang Road, Main Roads Western Australia has had consideration for a number of heavy vehicle movements accessing the Holcim Quarry.

Internal Access and Parking

Internal access will be via a network of gravel and sealed roads. As shown on the Development Guide Plan, it is proposed to seal the main access into the property, providing sealed access to the office and workshop. The remainder of access around the subject site will be constructed with gravel surfaces, including the laydown/hardstand areas. As outlined previously, where required the surfaces will be treated with dust suppressants and sprayed with water to reduce dust, should this prove an ongoing issue. As shown on the Development Guide Plan, it is proposed to locate an area for employee/visitor parking adjacent to the proposed office and workshop.

4.3.2 Services

Water

It is not proposed to connect a reticulated water supply to the proposed development. This supply is not available to the subject site. Therefore, it is proposed to use rainwater harvested from roof catchments of the proposed office and workshop and stored in rainwater tanks on-site accordingly. Details on the volume and catchment area of rainwater tanks will be provided in accordance with the requirements of the City of Albany at Application for Planning Scheme Consent stage.

Non-potable water supplies will be available from the numerous dams currently located on the property. As has been previously mentioned in this document, this water will be used for dust suppression and the machine washdown bay and is also available as a water supply for fire-fighting purposes should it be required.

Power

The subject site is currently serviced by an overhead power supply. Whilst no alterations to the existing power supply are proposed at this time, should a higher voltage supply be required for the operation of the workshop and office, this supply and its installation will be negotiated with Western Power.

On-site Effluent Disposal

All effluent disposal will be on-site, with appropriate systems installed to the satisfaction of Health Department of Western Australia and the City of Albany.

Telecommunications

It is likely that a telecommunications connection will be required to be installed. This installation will be arranged with the appropriate service provider.

5 RATIONALE AND CONCLUSION

Amendment No.4 to City of Albany Local Planning Scheme No.1 seeks to include Additional Use Site No.31 on Lot 104 Rocky Crossing Road, Willyung and insert the relevant provisions applicable to Additional Use Site No.31 into Schedule 2 of the Scheme.

This Amendment is justified by the following comments:

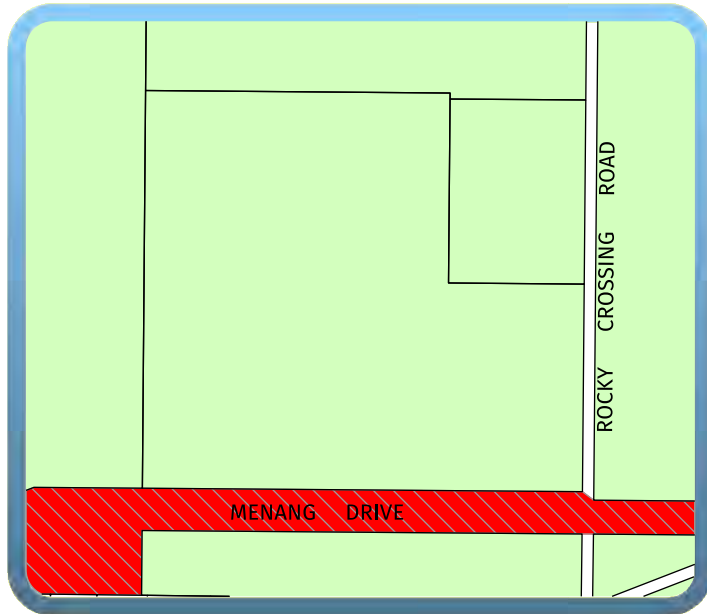
- It builds on and complements the existing approved extractive industry uses on the subject site;
- It actively plans for and controls the use of the subject site for limited purposes in conjunction with the Great Southern Sands group of companies, whilst the remainder of the property will continue to be used for rural purposes;
- The development is located in an area characterized by similar uses, being nearby to the Rocky Crossing Road quarry, located adjacent to the Menang Drive for good heavy haulage access;
- Prior to any development/use occurring for the Crushing and Mobile Asphalt Plant operations, it will be required that the relevant approvals are obtained from the Department of Environment Regulation;
- A similar industrial zoned site is not available in the Albany urban area. Those lots that may be available are either too small (Pendeen) for the operations or the Great Southern Sands group of companies does not meet the criteria for using the land (Mirambeena). Its existing premises are limited due to encroaching residential and sensitive premises;
- It will continue to support the growth of a local Albany business by providing a site appropriate to this business; and
- Adequate scheme controls applicable to the proposed development ensure that off-site impacts can be mitigated.

Endorsement of the Amendment identifying Lot 104 Rocky Crossing Road, Willyung as Additional Use Site No.31 is respectfully requested.

CITY OF ALBANY

Local Planning Scheme No. 1

Amendment No. 4

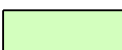


Existing Zoning

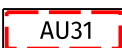
LOCAL SCHEME RESERVES

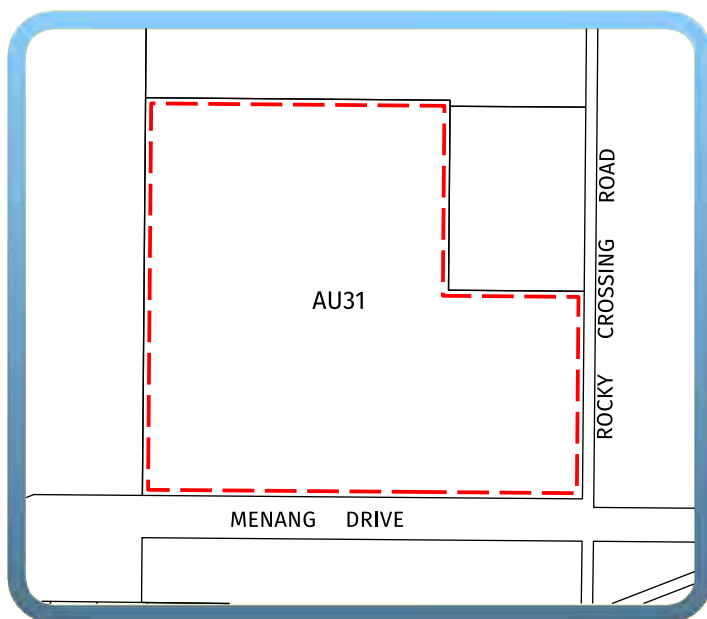
-  Local Roads
-  Major Road

ZONES

-  General Agriculture

OTHER

-  AU31 Additional Use



Proposed Zoning



PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

LOCAL PLANNING SCHEME NO.1

AMENDMENT No.4

The City of Albany under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

1. Designating an Additional Use Site over Lot 104 Rocky Crossing Road, Willyung including Additional Uses of Plant and Equipment Storage and Maintenance, Office (Incidental), Crushing, Mobile Asphalt Plant, and Storage of Building/Construction Materials/Products on Lot 104 Rocky Crossing Road, Willyung and amending the Scheme Maps accordingly; and
2. Amending Schedule 2 - Additional Uses to incorporate provisions relating to Lot 104 Rocky Crossing Road, Willyung (AU31).

Schedule 2 – Additional Uses [cl.4.5]			
No.	Description of Land	Additional Use	Conditions
AU31	Lot 104 Rocky Crossing Road, Willyung Deposited Plan 49239	Plant and Equipment Storage and Maintenance Office (Incidental) Crushing Mobile Asphalt Plant Storage of Building/Construction Materials/Products	<ol style="list-style-type: none"> 1. Development shall generally be in accordance with the Development Guide Plan endorsed by the CEO, subject to minor variations as may be supported by the Local Government. 2. The crushing and mobile asphalt plant uses shall be limited to the Crushing area depicted on the Development Guide Plan. 3. Plant and equipment storage and maintenance shall be limited to those vehicles, plant and equipment operated/owned by Great Southern Sands Group of Companies. 4. Storage of building/construction materials/products shall be limited to those used exclusively or dealt with by Great Southern Sands Group of Companies. 5. The washdown bay depicted on the Development Guide Plan shall be limited to those vehicles, plant and equipment operated/owned by Great Southern Sands Group of Companies. 6. The office use shall be limited and incidental to the predominant use of the property as determined by the Local Government. 7. Crushing activities shall not be permitted without approval from the relevant State Government agency. 8. Crushing activities are only permitted to be undertaken on-site within the hours of 8am to 5pm, Monday to Friday inclusive. 9. Vegetation screening depicted on the Development Guide Plan being implemented to the satisfaction of the Local Government and not unduly impacting the aspect of surrounding landowners. 10. At the time of development, the Local Government may require a contribution to the upgrade of Rocky Crossing Road between Menang Drive and the site access road.

PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

LOCAL PLANNING SCHEME NO.1

AMENDMENT No.4

ADOPTION:

Adopted by resolution of the Council of the City of Albany at the meeting of the Council held on the _____ day of _____ 201__:

Mayor

Chief Executive Officer

FINAL APPROVAL:

Adopted for final approval by resolution of the City of Albany at the meeting of the Council held on the _____ day of _____ 201__ and the Common Seal of the municipality was pursuant to that resolution hereunto affixed in the presence of:

Mayor

Chief Executive Officer

RECOMMENDED / SUBMITTED FOR FINAL APPROVAL:

Delegated under s.16 of the PD Act 2005

Date

FINAL APPROVAL GRANTED:

Minister for Planning

Date

APPENDIX A – CERTIFICATES OF TITLE

WESTERN



AUSTRALIA

REGISTER NUMBER 104/DP49239	
DUPLICATE EDITION 2	DATE DUPLICATE ISSUED 14/3/2008

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME
2616

FOLIO
525

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 104 ON DEPOSITED PLAN 49239

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

ACHILLIES PTY LTD OF 61 PEELS PLACE, ALBANY

(T K522899) REGISTERED 29 FEBRUARY 2008

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. K522900 MORTGAGE TO NATIONAL AUSTRALIA BANK LTD REGISTERED 29.2.2008.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

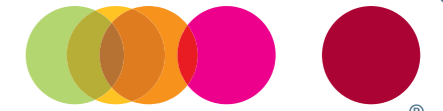
The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP49239.
PREVIOUS TITLE: 1728-83.
PROPERTY STREET ADDRESS: LOT 104 ROCKY CROSSING RD, WILLYUNG.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

APPENDIX B – SITE PLAN

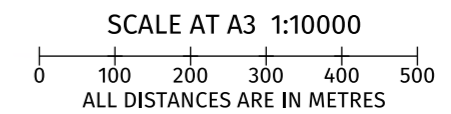
SITE PLAN

Lot 104 on DP49239
Rocky Crossing Road,
Willyung,
Albany

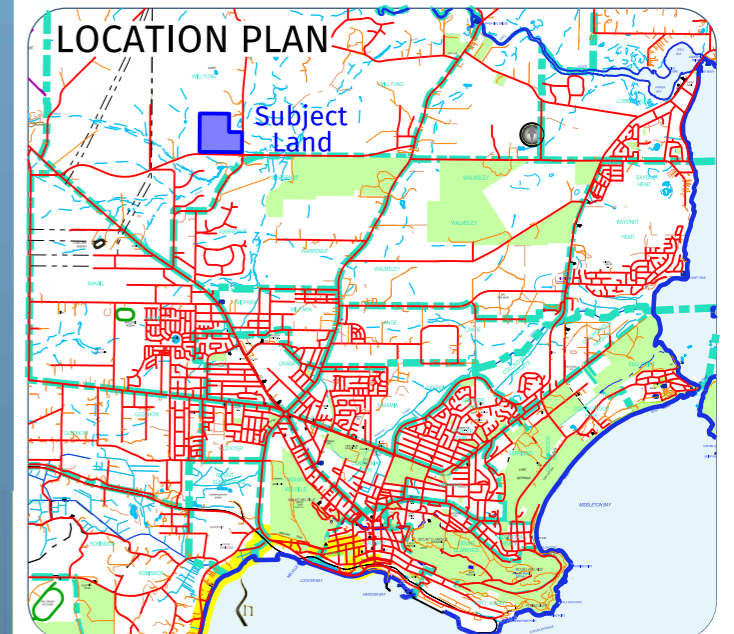


Harley Dykstra

PLANNING & SURVEY SOLUTIONS



DRAWN	CHECKED	DRAWING No
ABS 17/07/2014	SDP 17/07/2014	20112-02B.dgn
REV	DESCRIPTION	DATE
B	Client Modifications	17/07/2014
C	Appendix B Added	05/08/2014



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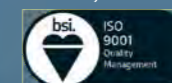
Offices also at Bunbury, Busselton, Kelmscott and Perth

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NOTE:

This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey



APPENDIX C – DEVELOPMENT GUIDE PLAN

REPORT ITEM PD066 REFERS

DEVELOPMENT GUIDE PLAN

Additional Use Site No.31
Lot 104 Rocky Crossing Road,
Willyung,
Albany



SCALE AT A3 1:5000
0 50 100 150 200 250
ALL DISTANCES ARE IN METRES

DRAWN	CHECKED	DRAWING No
SDP 14/10/2014	SDP 14/10/2014	20112-04C.dgn
REV	DESCRIPTION	DATE
B	Client Modifications	05/08/2014
C	Modification for the City of Albany	14/10/2014

- LEGEND**
- Buildings & Concrete Apron
 - Laydown or Hardstand
 - Proposed Crushing Area/Mobile Asphalt Plant
 - Sand Extraction Area
 - Washdown Bay
 - Stormwater Retention
 - Vegetation Screening
 - Unsealed/Sealed Access Roads

This Development Guide Plan has been adopted by Council and signed by the Chief Executive Officer for the City of Albany

Chief Executive Officer.....Date.....

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NOTE:
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Appendix C





Attachment 2 – Albany Local Planning Strategy Excerpts

Section 8.3.1 Strategic Settlement Direction

Section 8.3.1 *Strategic Settlement Direction* of the *Albany Local Planning Strategy 2010* (ALPS) sets the following strategic objective:

“Facilitate and manage sustainable settlement growth for the urban area in the City of Albany”

The ALPS sets out the following aims to achieve this objective:

“The ALPS aims to contain the spread of fragmented urban and rural living areas in the City by:

- *Providing for growth in urban areas, rural townsites and rural living areas as designated in ALPS.*
- *Minimising the development footprint on the landscape to help protect biodiversity and the environment.*
- *Promoting energy conservation.*
- *Providing greater housing choice.*
- *Minimising journey length from home to work/school/services and encouraging the use of public transport, cycling and walking.*
- *Reducing government expenditure on servicing current and future populations.”*

Section 8.3.5 Rural Living

Section 8.3.5 *Rural Living* of the ALPS sets the following strategic objectives:

“In the long term encourage the efficient use of existing rural living areas, based on land capability to maximise their development potential.”

“Ensure that future rural living areas are planned and developed in an efficient and co-ordinated manner by being located either adjacent to Albany as designated on the ALPS maps, or within existing rural townsites in accordance with Table 5 along with adequate services and community infrastructure.”

The ALPS expands on this by stating that *“The strategy’s objectives for Rural Living areas are to:*

- *Discourage the creation of additional rural townsites for living purposes.*
- *Avoid the development of Rural Living areas on productive agricultural land, other important natural resource areas and areas of high bushfire risk, flooding and environmental sensitivity.*
- *Avoid the development of Rural Living areas on future and potential long-term urban areas.*
- *Provide compact growth of selected existing rural townsites in accordance with Table 4, based on land capability and available services and facilities.*
- *Minimise potential for generating land-use conflicts.”*

Section 8.5.4 Tourism

Section 8.5.4 *Tourism* of the ALPS sets the following strategic objective:

“Encourage sustainable rural tourism uses and developments in location that are compatible with existing land uses, especially agriculture activities”.

The ALPS expands on the matter of tourism as follows:

“The ALPS supports tourism activities in the City’s rural areas because it broadens Albany’s economic base and provides additional jobs, particularly within or near existing townsites and settlements. Tourism developments need to be located, designed and managed in ways that protect and enhance an area’s scenic and environmental attributes”.

The ALPS also recommends the following actions to achieve the above tourism objective:

“Encourage the development of sustainable tourism uses and proposals that integrate with the City’s unique natural and man-made landscape and heritage values”.

“Put in place in the LPS1 necessary mechanisms to accommodate contemporary tourism development proposals”.

CITY OF ALBANY

LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 7

MINISTER FOR PLANNING

PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

LOCAL AUTHORITY: **CITY OF ALBANY**

DESCRIPTION OF LOCAL PLANNING SCHEME: **LOCAL PLANNING SCHEME No. 1**

TYPE OF SCHEME: **DISTRICT SCHEME**

SERIAL No. OF AMENDMENT: **AMENDMENT No. 7**

PROPOSAL:

- i) To rezone Lots 1 and 973 Nanarup Road, Lower King from the General Agriculture zone to the Rural Residential zone and incorporating them within area No. RR 11 as set out in Schedule 14 – Rural Residential zone of the Scheme text;
- ii) Designate portion of Lot 973 as an Additional Uses Site and incorporating it within Schedule 2 – Additional Uses of the Scheme Text; and
- iii) Amend the Scheme maps accordingly.

LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 7

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1. RESOLUTION
2. REPORT
3. EXECUTION

PLANNING AND DEVELOPMENT ACT 2005

**RESOLUTION DECIDING TO AMEND A
LOCAL PLANNING SCHEME**

CITY OF ALBANY

LOCAL PLANNING SCHEME No. 1

DISTRICT SCHEME

AMENDMENT No. 7

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

- i) Rezoning Lots 1 and 973 Nanarup Road, Lower King from the General Agriculture zone to the Rural Residential zone and incorporating them within area No. RR 11 as set out in Schedule 14 – Rural Residential zone of the Scheme text;
- ii) Designating portion of Lot 973 as an Additional Uses Site and incorporating it within Schedule 2 – Additional Uses of the Scheme Text; and
- iii) Amending the Scheme maps accordingly.

Dated this _____ day of _____

CHIEF EXECUTIVE OFFICER

CITY OF ALBANY

LOCAL PLANNING SCHEME NO. 1

AMENDMENT NO. 7

**PROPOSED RURAL RESIDENTIAL ZONE;
LOTS 1 & 973 NANARUP ROAD, LOWER KING.**

PLANNING REPORT

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APPENDIX B – FIRE MANAGEMENT PLAN

APPENDIX C – SCHEDULE 14 – RURAL RESIDENTIAL ZONE – CL 5.5.13

1. INTRODUCTION

Lot 973 Nanarup Road, Lower King is designated in the Albany Local Planning Strategy for both 'Rural Residential' and 'General Agriculture' purposes. The 'Rural Residential' component broadly relates to the more elevated land on the western portion of the property and the 'General Agriculture' portion covers the flatter, low lying land on either side of Johnson Creek.

Following the recent gazettal of the City of Albany's Local Planning Scheme No. 1, the landowner proposes to rezone the property for rural living purposes with a range of lot sizes which reflect the capability of the property.

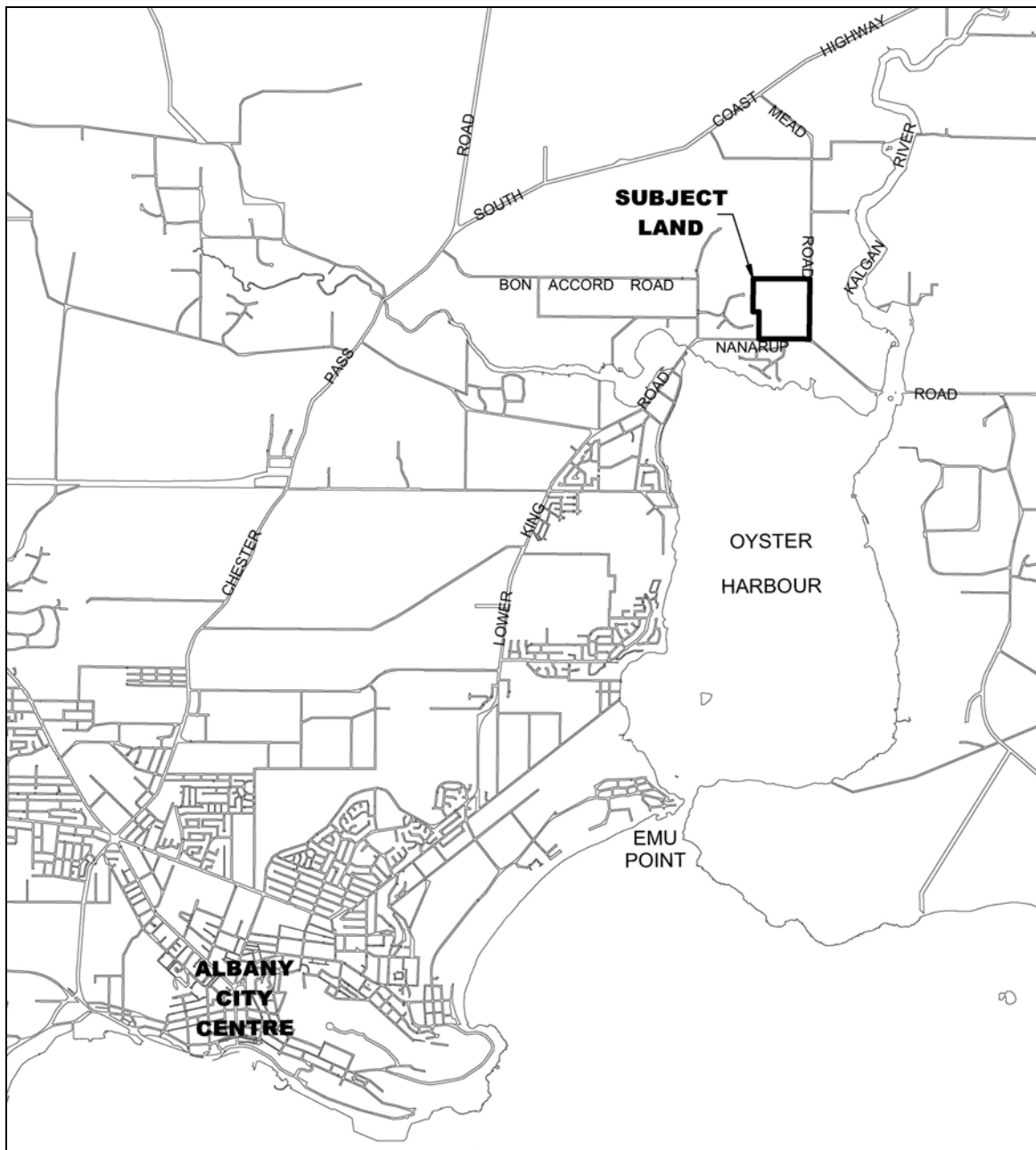
The following report provides background information and discussion in support of the proposal.

2. BACKGROUND

2.1 Location, Area & Zoning

Lot 973 is located on the north west corner of Nanarup Road and Mead Road, Lower King, approximately 12km north east of the Albany city centre. Refer location plan below.

The property is 57.81ha in area and is currently zoned 'General Agriculture'.



Location Plan

2.2 Site Description

The site consists of gravelly lateritic upland areas to the west and north east which are separated by a shallowly incised valley formed by Johnson Creek.

The sloping terrain between the valley floor and upland gravelly areas is predominantly sandy and gently inclined. Slopes are generally less than 10%, apart from some moderate to moderately steep terrain within the central west which is covered in remnant vegetation.

The lowest point is in the south east corner of the property at approximately 6 metre AHD, rising to a high point of 44 metres AHD on the western boundary.

Most of the property has been cleared for pasture and agistment of stock (sheep). Two areas of remnant vegetation are located on the central western and north eastern slopes and consist of Jarrah-Marri-Sheoak forest. Some Taxandria, Melaleuca and Agonis species are located along either side of the creek line which has been fenced.

Apart from stock yards, a shed and a dwelling which is currently unused, the property is undeveloped. Access is currently provided from Nanarup Road where access over the main water pipeline is provided.



Existing vacant residence looking south to Oyster Harbour



Remnant vegetation abutting Johnston Creek.



View from Mead Road looking north west across Johnston Creek.



View from the north east corner of the property looking south to Oyster Harbour.



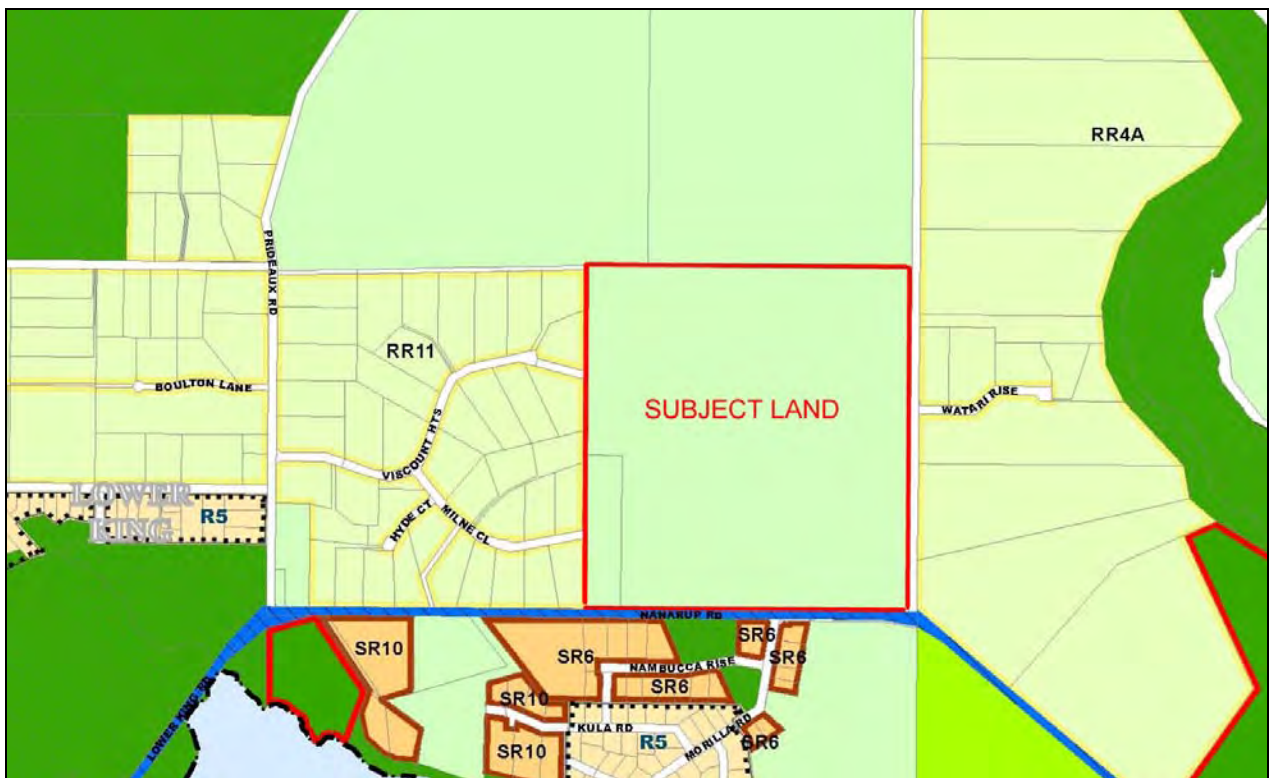
Remnant vegetation on the central western slopes.



View from the western slopes looking across Johnston Creek to remnant vegetation in the north east corner of the property.

2.3 Surrounding Land Use and Zoning

To the west of Lot 973 lies Sheringa Park which consists predominantly of one hectare rural residential lots. In the south west corner is a two hectare parcel of land which is zoned ‘General Agriculture’. To the east is the Mead Road rural residential area which initially consisted of 10ha lots. More recently, a scheme amendment has provided for some of these lots to be further subdivided down to a minimum of one hectare. On the south side of Nanarup Road, land on the western side of Johnson Creek is predominantly zoned ‘Special Residential’ with a pocket of ‘Residential’ R5 land. Lot sizes range from 2000m² to 9556m². A corridor of land on either side of Johnson Creek, which runs south to Oyster Harbour, is zoned ‘General Agriculture’ and to the east is the Great Southern Grammar School. To the north, land is zoned General Agriculture and is used for agisting stock.

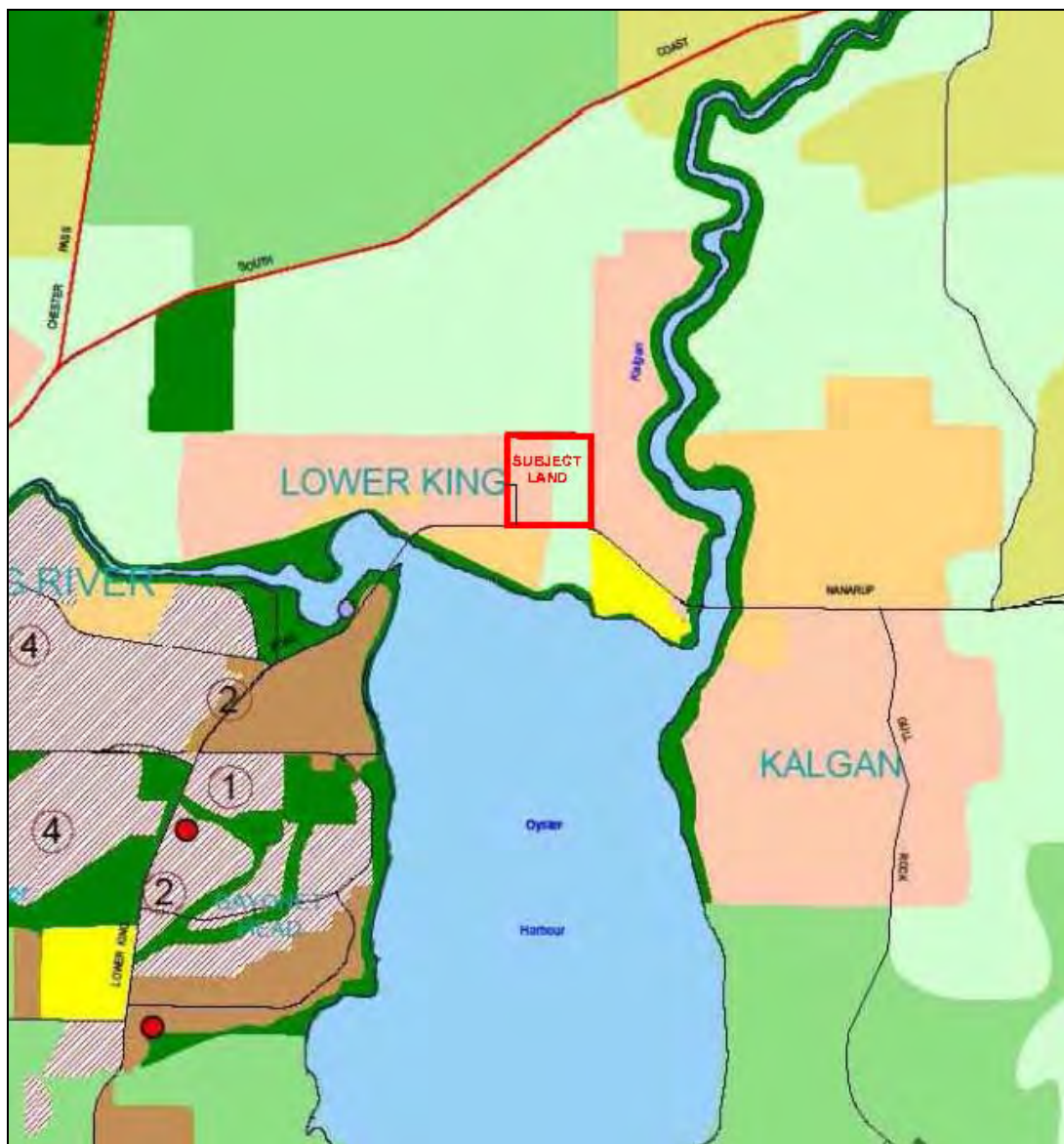


Zoning Map of Locality

3. PLANNING CONTEXT

The Albany Local Planning Strategy (ALPS), which was endorsed by the WAPC in June 2010, together with Council's Local Planning Scheme No. 1 are the key planning documents which provide guidance in terms of future use and development of land in the City.

The subject land is designated as 'Rural Residential' and 'General Agriculture' on the Strategic Plan: Urban (Map 9B). Refer extract below..



Extract of Map 9B

3.1 Albany Local Planning Strategy

Strategic objectives contained within Section 8.3.5 'Rural living' include:

“Ensure that future rural living areas are planned and developed in an efficient and coordinated manner by being located either adjacent to Albany as designated on the ALPS map or within existing rural townsites.....”

Objectives are to:

- Discourage the creation of additional rural townsites for living purposes.
- Avoid the development of Rural Living areas on productive agricultural land, other important natural resource areas and areas of high bushfire risk, flooding and environmental sensitivity.
- Avoid the development of Rural Living areas on future and potential long-term urban areas.
- Provide for compact growth of selected existing rural townsites in accordance with table 5, based on land capability and available services and facilities.
- Minimise potential for generating land-use conflicts.

Actions include:

- Give top development priority to the subdivision of land currently zoned Special Residential and Special Rural within the City's current Town Planning Schemes and as designated on the ALPS maps (CoA, WAPC). Refer to the ALPS Map which designates the site for rural residential purposes.
- In the long term, maximise opportunities for existing rural living areas that do not have potential for future urban development to achieve higher sustainable lot yields based on land capability/suitability, service provision and local constraints. These areas would be given second priority to meet future demands (CoA, WAPC).
- Include Rural Residential, Rural Small Holding and Conservation zones with appropriate provisions in the LPS1 (CoA).

3.2 Albany Local Planning Scheme No. 1

Prior to considering any additional land to be rezoned to Rural Residential, Council's Local Planning Scheme No. 1 requires the proponent to address the following matters;

- a) Compliance with the outcomes and recommendations of the Albany Local Planning Strategy;
- b) Fire hazard assessment and Fire management Plan;
- c) Land capability and suitability assessment.
- d) Protection and enhancement of natural environment;
- e) Protection and enhancement of visual amenity;
- f) Provision of infrastructure and services;
- g) Impacts on adjacent land uses;
- h) Any potential site contamination;
- i) Effluent disposal;
- j) Location of building envelopes; and
- k) Preparation of a Guide Plan for the subdivision showing proposed roads and connectivity between proposed/future and existing developments, lots, recreation areas and location of building envelopes.

The Scheme also incorporates a range of general provisions relating to rural residential zones which include:

- Building design, materials and colours.
- Fire Protection.
- Modifications to designated Building Envelopes/Setbacks.
- Fencing.
- Remnant Vegetation Protection and Clearing Controls.
- Tree Planting.

- Dams, Soaks and Bores.
- Keeping Animals.
- Effluent disposal.
- Water Supply.
- Electricity Supply.
- Stormwater Management and Drainage.
- Road and Battleaxe Access.
- Notification of Prospective Purchasers and successors in Titles.

The Scheme also provides for additional Special Provisions relating to a particular Rural Residential zone to be set out in Schedule 14 of the Scheme Text.

4. LAND CAPABILITY

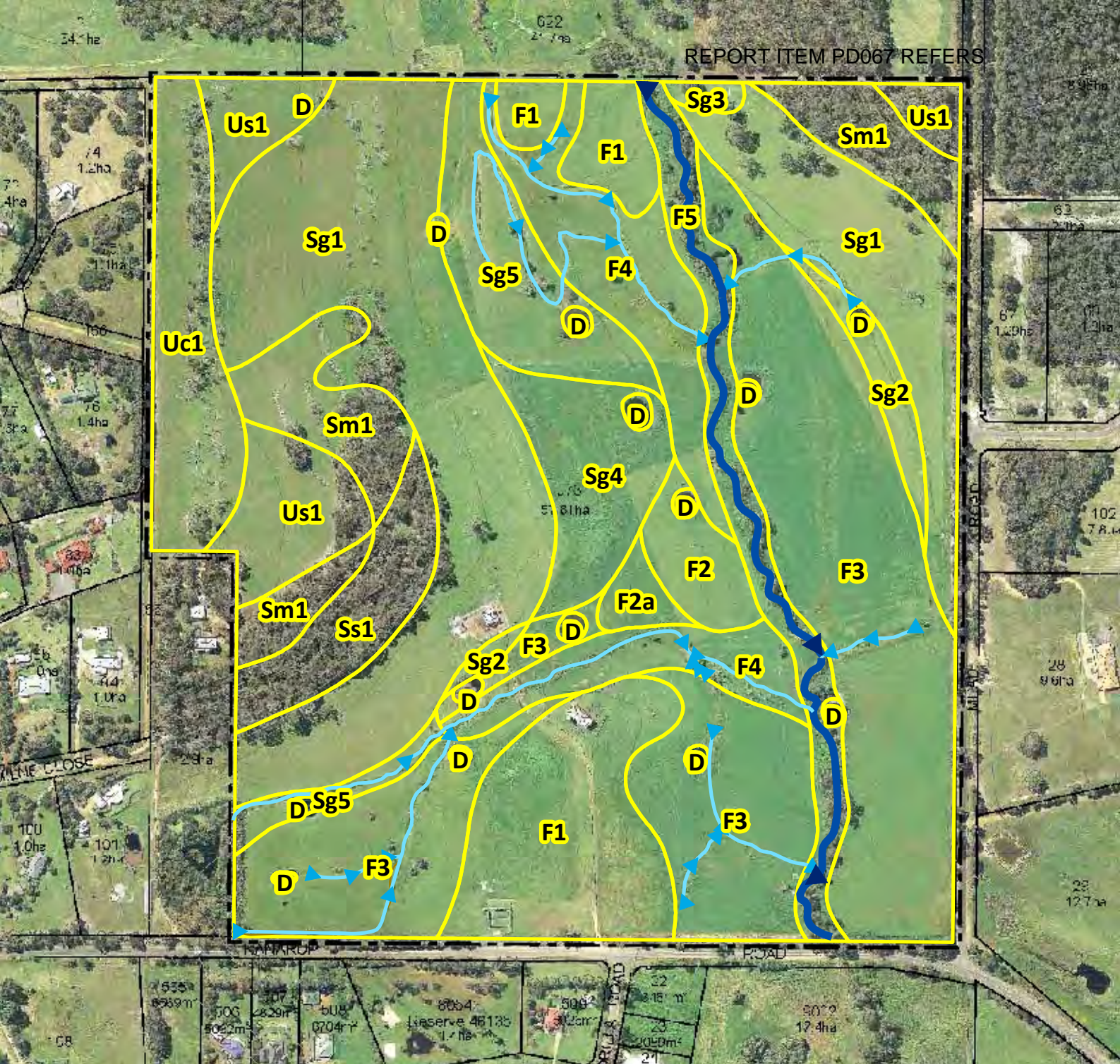
A detailed land capability assessment of the site has been carried out by Land Assessment Pty Ltd and is attached in Appendix A.

Soil and landform conditions were surveyed in general accordance with the methodology outlined in DAFWA publications (van Gool et al 2005, Wells and King 1989). Some 25 soil test pits were excavated using a hand auger and a further 12 pits using a backhoe. Holes were dug to 2 metre depth where possible. Depth to groundwater was recorded where the water table (perched or otherwise) was encountered within any of the test pits. Subsoil sampling for PRI (Phosphorous Retention Index) analysis was also undertaken at a number of sites.

A description of the identified land units and land capability assessment are shown on Figures 4 and 5 overleaf.

Key findings from the assessment include:

- Depth to groundwater will not be a limiting factor for unsewered rural residential development within most of the slopes and upland areas. Depth to groundwater within the lower foot slopes and valley floor will however affect the type of on-site effluent disposal system, the amount of required soil fill material and, in some cases, preclude unsewered development.
- Given the sandy nature of the soils, it is recommended intensive agricultural pursuits, such as piggeries and horticultural operations, not be permitted in the area. Appropriate provisions are required to minimise the export of nutrients from on-site effluent disposal systems and livestock excrement.
- The use of Health Department approved alternative effluent disposal systems that have a phosphate removing capability is recommended.





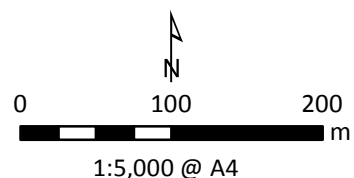
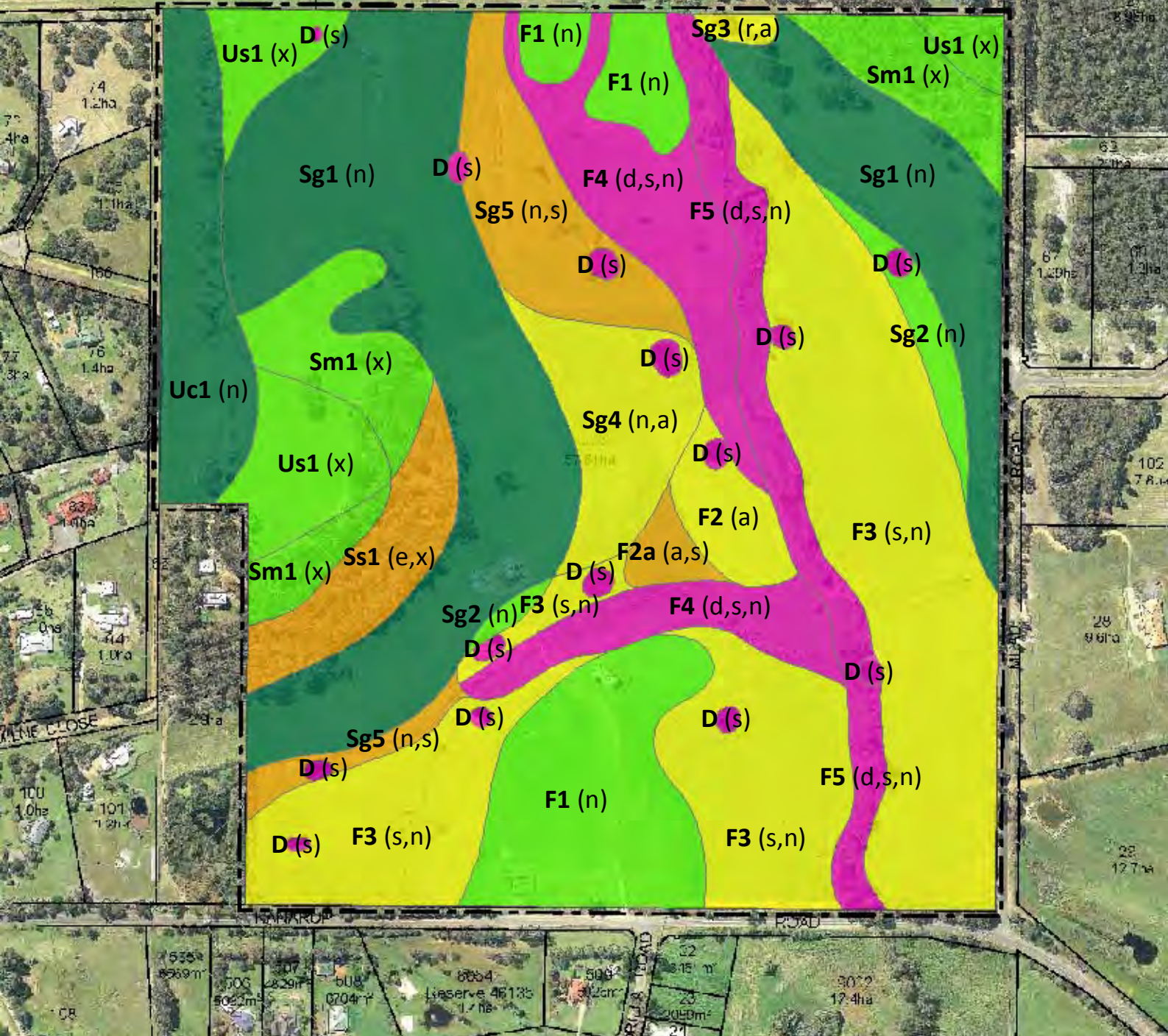
Upland terrain	Uc1 Crest; pale deep sands. Us1 Upper slopes (< 5% gradient); pale shallow sand over laterite.
Valley slopes	Ss1 Moderately steep (15 – 25%); shallow gravels or sand; surface laterite. Sm1 Moderate gradient (10-15%); shallow gravels or sand; surface laterite. Sg Gentle gradients (3 – 10%). Sg1 Pale deep sands; well drained. Sg2 Grey to yellow brown deep sands over clay; well drained. Sg3 Shallow sandy duplex soil; common granite outcrop. Sg4 Grey sandy duplex soil; humic pan over subsoil clay; imperfectly drained. Sg5 Semi wet soils (grey deep sands); imperfectly drained.
Valley floor (flats with < 3% gradient)	F1 Pale deep sands; moderately well drained F2 Grey sandy duplex soils; imperfectly drained. F2a Semi wet soils (sandy duplex); imperfect to poorly drained. F3 Semi wet soils (grey sand over humic pan or clay); imperfect to poorly drained. F4 Semi wet soils (grey sand over humic pan or clay); poorly drained. F5 Watercourse and immediate margins.
Drainage Features	D Dams or Soaks  Drainage channel (excavated)  Watercourse (seasonal)

Figure 4:
Land Units





Land Capability

- Fair to High - Minor Limitations
- Fair - Moderate Limitations
- Fair to Low - Moderate to Significant Limitations
- Low - Significant Limitations
- Very Low- Severe Limitations

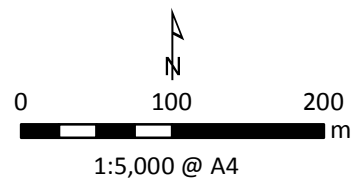
Land Units

Labels in bold
 Descriptions in Figure 4

Limitations

Labels in brackets
 a soil absorption ability (depth to clay)
 d drainage (stream pollution risk)
 e erosion risk
 n nutrient retention (poor)
 r rock outcrop (granite)
 s seepage and waterlogging
 x excavation difficulties (shallow depth to laterite)

Figure 5:
Land Capability Assessment for Rural-Residential Development



- Given the susceptibility to nutrient loss (and wind erosion) of most soils, it is recommended the keeping of live stock not be permitted without specific approval of Council. It is suggested that the keeping of livestock generally be restricted to the larger lots on the valley floor rather than the smaller 1ha sized lots on the sandy slopes and upland areas.
- Some rationalisation of the shallow open drains on the valley floor that have been formed to reduce water logging and improve the agricultural capability of the land is recommended in order to reduce their potential to act as a conduit for the movement of nutrients into the creek.
- Visual Impacts from Nanarup Road can be minimised by enhancing roadside vegetation, by protecting hill slope remnant vegetation and use of appropriate colours and materials for proposed buildings.
- Protection and enhancement of riparian vegetation along the margins of Johnson Creek is recommended in order to minimise nutrient loss and reduce potential erosion.
- Development within areas of very low capability (units F4, F5 & D) is not recommended.
- Larger lots are recommended in valley floor land units (F1, F2 and F3) and foot slopes (Sg3, Sg4 and Sg5) to accommodate future residences, their on-site effluent disposal systems (alternative, nutrient retentive systems) as well as providing for;
 - A 30m minimum setback from the creek.
 - A 6m minimum setback from the excavated drainage channels.
 - A 30m setback from any dam which is to be retained and available for livestock watering; and
 - An appropriate level of fill material to enable adequate separation from estimated highest water table levels.

5. SERVICES

5.1 Roads

Lot 973 fronts Nanarup Road and Mead Road, both of which have been developed to a bitumen standard.

Connection is also possible to the west via an extension of Viscount Heights which forms part of the Sheringa Park Estate. Subject to Lot 1 Nanarup Road being developed in the south west corner, a further connection via Milne Close may also be possible. Provision should at least be made for emergency access/egress purposes. A main access off Nanarup Road in the vicinity of the existing access is required with Viscount Heights providing the main secondary means of access and egress. Any restriction on access to and from Nanarup Road would result in all the traffic to the proposed development being drawn through the Sheringa Park Estate. While planning of the Estate has provided for connectivity through the subject land, the amenity of the Estate would be affected if the traffic was directed through the Estate without the main access being from Nanarup Road.

5.2 Scheme Water

Sheringa Park Estate, Nanarup Heights and the subject land are connected to scheme water. A reticulated water supply runs along Nanarup Road and Mead Road.

5.3 Power

The subject land is connected to the power supply in the area which can be extended to service the proposed development. The power lines will be placed underground within proposed road reserves in accordance with current policy.

5.4 Effluent Disposal

As scheme sewer is not available to service the area and cannot economically be provided, effluent disposal will be by way of on-site effluent disposal units. The type of disposal units will depend on the nature of the land which varies across the property and has been considered in the capability assessment undertaken by Land Assessment Pty Ltd.

5.5 Stormwater Management

As it is proposed that all development will generally be located within the well drained higher capability land, i.e. units Uc1, SG1, SG2 and F1, it is considered that the management of erosion and stormwater can easily be achieved with standard engineering and land practices. This includes;

- use of rainwater tanks to collect stormwater from rooves;
- use of soak wells;
- alignment of roads and driveways along contours where possible and use of open drainage swales where practical;
- kerbing and piping of stormwater on steeper sections of roads;
- use of detention and soakage basins along with drainage easements to manage stormwater from roads;
- stabilisation and revegetation of disturbed areas;
- revegetation of the drainage line.

A detailed stormwater management plan will be required at subdivision stage of development to ensure all these initiatives are brought together into an effective and sustainable plan. The large lot sizes ensure that there is ample room to accommodate the necessary drainage infrastructure.

5.6 Access to Facilities

The subject land is conveniently located in relation to a range of facilities which include;

- The Great Southern Grammar School, located one kilometre to the east.
- The Finders Park Primary School, located 6km to the south.
- The Lower King Pre-Primary School Centre, located 3.5km to the south west.
- The Lower King Liquor and General Store, located 1.5km to the west.
- The Bayonet Head Neighbourhood Shopping Centre, located 6km to the south.
- The Kalgan Progress Association Hall, located 3.5km to the east.

5.7 Fire Safety

The majority of Lot 973 (over 90%), has been cleared for pasture and is predominantly flat or has slopes of less than 10°. This area has a “Low” bushfire hazard assessment. Two areas of remnant vegetation are classed as ‘B Woodland’ and have a “Moderate” fire hazard rating.

Development down slope of the remnant vegetation in the central west area of the property will require a building setback of between 20 to 29 metres with building construction to a BAL 19 specification. Lots capable of providing building setbacks between 29 to 100 metres from the up slope vegetation require construction to a BAL 12.5 level.

Development up slope of the vegetation (Lot 8) will require construction to BAL 29 with a 30 metre setback or BAL 19 with a 40 metres setback.

In the north east corner of the property, development down slope of the vegetation will require a building setback of between 20 to 29 metres with a BAL 19 level of construction.

Development on the balance of the property, where separation distances range between 50 - 100 metres from vegetation, will be required to be constructed to BAL 12.5.

A preliminary Fire Management Plan is attached in Appendix ‘B’ and provides further detail and explanation. A detailed Fire Management Plan will be required at the subdivision stage of development.

5.8 Visual Impact

As Nanarup Road is an important tourist route leading out to Gull Rock, Nanarup Beach and Two Peoples Bay, the visual impact of more intensive development on Lot 973 requires consideration.

While vegetation within the road reserve partially screens the property, the broad river flats associated with Johnson Creek, provide a distinctive view corridor running to the north, framed by a prominent vegetated knoll along the central western boundary and to a lesser extent in the north east corner of the site.

Development of the site proposes to retain these two distinctive elements. A broad flat corridor on either side of the creek will be retained within two large lots with dwellings located further upslope. Remnant vegetation on the elevated portions of the property will be retained so that no development is visible on the skyline. Smaller lots will be predominantly clustered below the vegetation on the mid slopes. Development on the flatter elevated land along the central western and northwest corner of the property will be screened from Nanarup road by the existing remnant vegetation.

Additional planting is also proposed along Nanarup Road, together with revegetation of Johnson Creek and a distinctive avenue of street trees along the main access into the property from Nanarup Road. Landscaping associated with new dwellings on the property is also nominated on the Subdivision Guide Plan and provisions requiring appropriate materials and colours to be used are incorporated in the Scheme Provisions.

5.9 Impact on Adjacent Land Uses

Lot 973 is surrounded by rural living areas to the west, east and south. Rezoning and development for rural residential purposes will be compatible with the surrounding land use and can effectively reduce potential conflict associated with general agricultural activities in close proximity to rural living areas.

The only exception is along the northern boundary where the property to the north will remain within the General Agriculture zone. Lots have been designed so that they back onto the northern boundary in order to maximise the separation of residences from the 'General Agriculture' zone. The location of remnant vegetation along much of the boundary of the adjoining property, supplemented by revegetation on the subject land will also help to provide an effective buffer which will minimise potential conflict. Notification on titles of the lots abutting the northern boundary advising owners of the potential impact of rural pursuits is recommended.

6. AVAILABILITY OF RURAL LIVING LAND

The subject land is located centrally within a prime lifestyle area, located between the King River to the west and the Kalgan River to the east. Oyster harbour is also located immediately to the south.

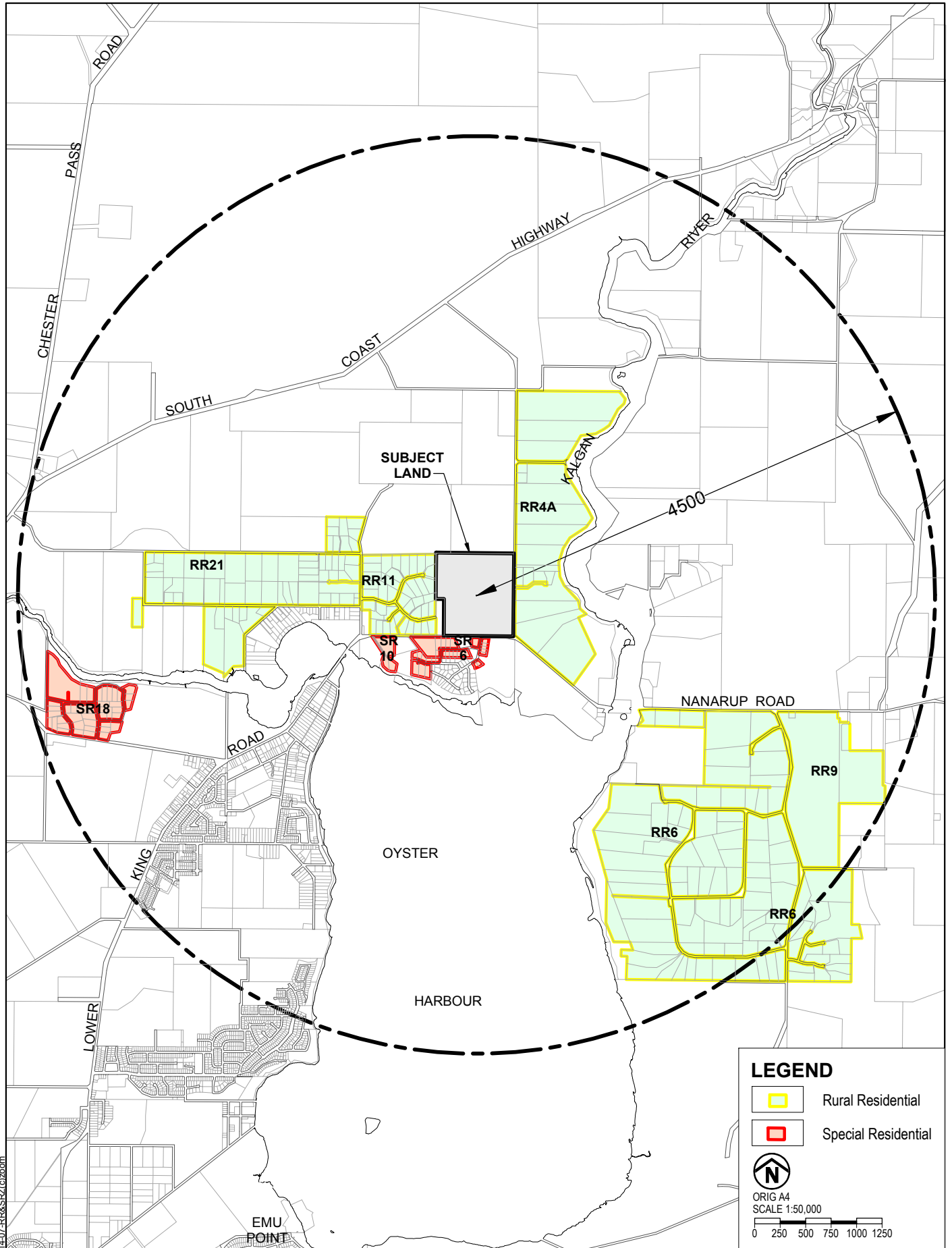
Within this north-eastern fringe of the City, there are 5 rural residential areas and 3 special rural areas within approximately 4.5km of the subject land.

Apart from RR 9 Gull Rock Road, which has yet to proceed to development, all of the areas are developed. Of the total 356 lots created, 87% of them have been developed. The 13% remaining undeveloped consists of 45 lots and only a few remain for sale. Refer table below and plan overleaf.

Table 1. Rural Living Land Availability (as at July 2014)

Area	Lots Currently Available for Development	Developed Lots	Vacant Lots	% Developed
RR 4A	18	13	5	72%
RR 6	97	90	7	93%
RR 9	Undeveloped	0	74 Lot Potential	0%
RR 11	41	41	0	100%
RR 21	63	58	5	92%
SR 6 & 10	85	76	9	89%
SR 18	52	33	19	65%
	356	311	45	87%

While RR 9 has gained subdivision approval, and has the potential to create an additional 74 lots, provision of scheme water is a constraint, requiring elevated water tanks to be provided and an extension of the main supply across the Kalgan River. Given the age of the proponent it is not clear whether the development will proceed within the immediate future.



14-07-RR&SRZ (a2)zoom

The Sheringa Park Estate immediately to the west of the subject land has been fully developed and the Special Residential land on the opposite side of Nanarup Road is 89% developed, with only 9 vacant lots. To the east, the Mead Road rural residential area only has 5 vacant lots remaining, and while some remaining lots have further development potential, they are constrained by extensive areas of remnant vegetation and areas of low lying land subject to winter inundation.

Given the extent to which rural living areas have been developed in the north eastern fringe of the City, it is considered that there is scope for the subject land to be rezoned so that consideration can be given to subdivision and creation of additional lots to meet the demonstrated demand for the area.

As the timeline for completion of the rezoning and bringing the lots onto the market is likely to take up to 5 years, the lot supply in the area will continue to be reduced.

It should be borne in mind that there are many variables affecting the demand and supply of land. As economic conditions, servicing requirements and personal circumstances change over time, there are many reasons why land and individual lots may be with held from development. Overall however, it is considered there is no over supply of lots in the north east fringe of the city, and even with the inclusion of RR 9, which has yet to be developed, 72% of the available lots have already been developed.

7. LAND SUITABILITY

The suitability of Lot 973 Nanarup Road for Rural Residential development has already been identified within ALPS which designates the property for that purpose. This designation is justified for a number of reasons, including;

- The land capability assessment does not identify the land as high quality or priority agricultural land.
- Intensive farming of the property is not recommended given the sandy soils over much of the property and the potential for export of nutrients into the creek and nearby Oyster harbour.
- The property has rural living lots to the east, west and south and its retention as agricultural land creates a potential conflict with the surrounding uses, particularly as the size of the property restricts the ability to incorporate appropriate buffers.
- The site is not located within an area identified for future fully serviced urban development. Its location to the east of King River suggests it will not be capable of being economically deep sewered in the foreseeable future.
- It is located in an area well suited for lifestyle lots and effectively represents a rounding off of such development.
- As noted in section 4.5 above, the property has ready access to schools, shops and community facilities.
- While the property has some low lying poorly drained land along the river flats, development can predominantly be accommodated on the more elevated land which is well drained and has a fair to high capability for rural residential development and the associated on-site effluent disposal.

8. AMENDMENT PROPOSAL

In accordance with ALPS, it is proposed to rezone Lot 973 Nanarup Road from the 'General Agriculture' zone to "Rural Residential" zone. As the adjoining lots in the south west corner, Lot 1, is a de-facto rural residential lot, it has also been included in the rezoning proposal at the request of the City of Albany.

Key elements of the proposal include:

- While ALPS only incorporates the western portion of Lot 973 within the rural residential designation, no doubt due to the poorer land capability associated with Johnson Creek, which runs north and south through the property, it is proposed to incorporate the whole site within the Rural Residential zoning for the following reasons;
 - The land capability on the eastern side of the creek is capable of accommodating development, particularly towards the north east corner which also has attractive elevated views to Oyster harbour.
 - Incorporation of Johnson Creek and associated river flats will facilitate on going management of this significant feature which drains directly into Oyster harbour. This will include revegetation of the area on either side of the creek, fencing and weed management. Management of land use within the river flats also requires careful consideration given concerns regarding the export of nutrients into the harbour.
 - As rural residential development occupies the land on the eastern side of Mead Road, retention of the 'General Agriculture' zoning is questionable given the potential for conflict with rural residential development in close proximity on either side.
 - From a visual aspect, the retention of a rural corridor on either side of Johnson Creek can be retained with larger lots on the river flats and setbacks for buildings so that they are located on more elevated land.

SUBDIVISION GUIDE PLAN

Lot 973 Nanarup Road Lower King, City of Albany

ALL AREAS AND DIMENSIONS ARE SUBJECT TO SURVEY



LEGEND

- Subject Land
- Existing Lot Boundaries
- Proposed Lot Boundaries
- Existing Vegetation
- Proposed Vegetation
- Existing Buildings
- Existing Crossing
- Existing Dams
- Creek Line
- Creek Line Protection Area
- Drainage line
- View Corridor
- Development Exclusions Area
- Proposed Building Envelope
- Additional Uses Site Tourist Accommodation

ORIG A3
SCALE 1:4000

0 20 40 60 80 100

AYTON BAESJOU
PLANNING

11 Duke Street
Albany WA 6330
Ph 9842 2304 Fax 9842 8494

- Access to the site is currently provided from Nanarup Road close to where Morilla Road intersects on the opposite side of the road. The water main from Two Peoples Bay runs along side the southern boundary of the property within the Nanarup Road reserve and has been lowered to facilitate access to the subject land.

Two other potential access points to the site would entail the extension of either or both of Viscount Heights and Milne Close which are located within the Sheringa Park rural residential estate to the west. Milne Close would also have to be extended through Lot 1 which is located adjacent to the south west corner of Lot 973.

It is proposed that the main access to the property be retained on Nanarup Road, subject to its relocation further to the west so that the minimum separation to the Morilla Road intersection of 40 metres can be achieved. This would enable the water main to be crossed as it is still below the level of Nanarup Road at this point.

Sight distances along Nanarup Road are also well in excess of minimum requirements with a distance of 380 metres to the east and 500 metres to the west.

A secondary access is proposed by extending Viscount Heights, utilising the ROW that has been provided for this purpose. This access way will benefit both the proposed development and Sheringa Park Estate by providing an alternative access and egress for both developments.

At such time as Lot 1 is subdivided, consideration can be given to a third point of access by linking the proposed development with Milne Close.

As only five lots are proposed with frontage to Mead Road, it is proposed that joint crossovers are used which will result in only three access points.

- Twenty nine lots are proposed ranging in size from a minimum of 1ha to 9.5ha. The smaller lots are clustered on the more elevated areas of the property where the land capability ratings are most suitable for development. In order to facilitate on-going management of the creek and retain the landscape qualities of the 'Rural' corridor, two large lots of 9.5ha and 7.8ha are proposed.

Both contain the creek so that they have access to both sides of the creek. Revegetation of the creek is proposed on both sides in order to minimise the potential for nutrients to be exported from surrounding properties into the waterway. A joint access way over the creek is proposed utilising an existing crossing point.

- In order to accommodate the additional development on the site while at the same time retaining a semi-rural aspect, strategically located revegetation is proposed. Existing vegetation along Nanarup Road needs to be consolidated together with revegetation along the main subdivisional road and individual house sites. Sheringa Park Estate is an example of how revegetation can transform a largely cleared site to create an attractively landscaped development. A vegetated buffer along the northern boundary will also help to minimise potential conflict with the rural use of land to the north.
- A 4ha lot is proposed in the north east corner of the property for short stay tourist accommodation. The elevated land, attractive views over Johnson Creek and through to Oyster Harbour, together with the remnant vegetation, provide an opportunity to provide an alternative land use to rural residential development. It is noted that Nanarup Road is a significant tourist route, providing access to attractions around King River, Oyster Harbour, the Kalgan River, Nanarup and Two Peoples Bay. It is recommended that up to twelve chalets could comfortably be accommodated on the site with appropriate setback from the remnant vegetation.
- In terms of future land use within the development, productive uses, particularly those that can contribute to the tourist industry are recommended. Uses such as bed and breakfast/farm stay, cottage industry, craft studios, public recreation and on the larger lots, rural pursuits (limited to existing cleared and pastured land only). Given the sandy soils, potential for export of nutrients and proximity to Oyster Harbour, intensive agriculture /horticulture is not recommended.

9. MANAGEMENT PROVISIONS

As the proposed development is effectively an extension of the Sheringa Park rural residential estate, it is logical to incorporate Lots 1 & 973 into Rural Residential Area RR 11 as set out in Schedule 14 – Rural Residential Zone of the City of Albany Local Planning Scheme No. 1.

A copy of the special provisions which apply to RR 11 is attached in Appendix C. It is considered these provisions are appropriate for the proposed development and provide for a range of uses such as Bed and Breakfast/Farmstay, Industry – Cottage, Public Recreation, Rural Pursuit and Restaurant.

10. CONCLUSION

Lot 973 and Lot 1 Nanarup Road are the last of the remaining lots on the northern side of Nanarup Road between the King River and Kalgan River which have not been zoned for rural residential purposes. Rezoning to the Rural Residential zone is a logical extension of the Sheringa Park Estate to the west and is considered a more compatible use than its retention in the 'General Agriculture' zone.

Detailed land capability assessment concludes that the land is not prime agricultural land and that its continued use for agricultural purposes could result in the export of nutrients into the nearby Oyster Harbour. On the other hand, nor is the land located within an area that is likely to be developed for fully serviced urban development. It is instead, ideally suited for the creation of lifestyle lots which are a significant attraction for people wishing to live in Albany, particularly in a location such as this which has views through to Oyster Harbour and access to both tourist attractions and general amenities.

Management provisions are recommended which will address key issues such as bush fire risk, visual amenity and retention of nutrients within the site. There is also an opportunity to provide for tourist orientated activity, as well as small scale productive uses which will contribute to the tourist attraction of the area.

An assessment of current availability of rural living lots in the north eastern fringe indicates that approximately 87% of currently available lots have been developed and that by the time this proposal creates additional lots, there is likely to be very little supply remaining.

In order for the proposal to proceed, Council's support to initiate the required scheme amendment is respectfully requested.

Appendix A

Land Capability Assessment

Land Assessment Pty Ltd

LAND CAPABILITY ASSESSMENT - Rural Residential Development

Lot 973 Nanarup Road, Lower King
City of Albany

Prepared for

AYTON BAESJOU PLANNING

on behalf of

Mr G Clark

by

Land Assessment Pty Ltd



LA Report No 1402
27 April 2014

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Email: landass@inet.net.au

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1.0 INTRODUCTION

This report has been prepared for Ayton Baesjou Planning (on behalf of the landowner) as part of its submission to the City of Albany to initiate rezoning of Lot 973 Nanarup Road from 'Rural' to "Special Rural" and the subsequent subdivision to create lots of not less than a minimum 1 ha in size.

Lot 193 is 57.81 ha in area and is located on the northern side on Nanarup Road in the Lower King locality as shown in Figures 1a and 1b.

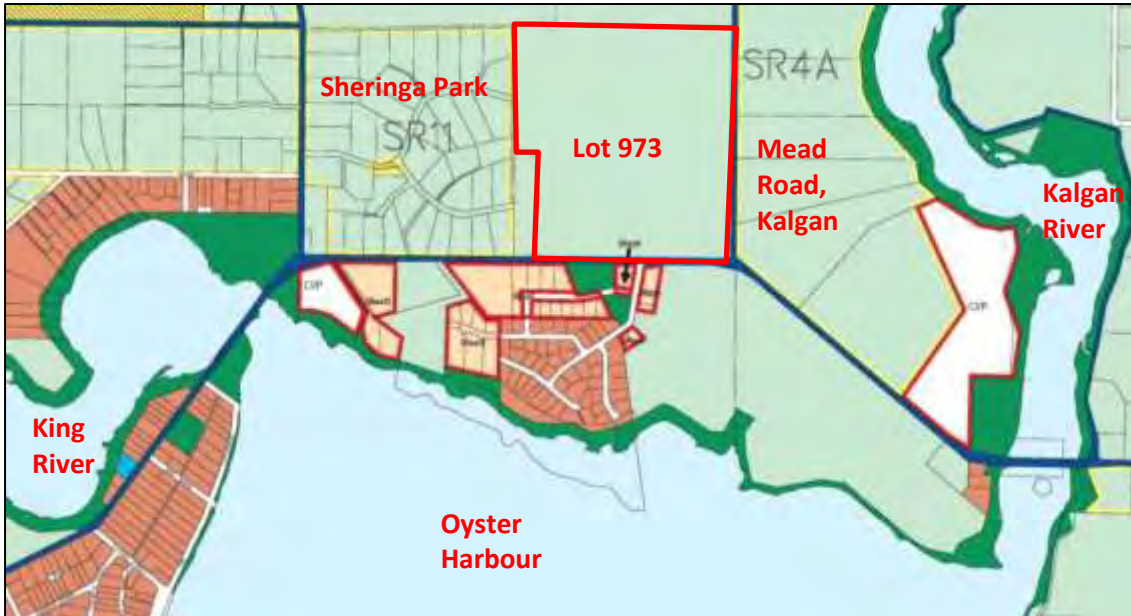
The major portion of Lot 193 has been identified within the Local Planning Strategy (City of Albany 2010) as being provisionally suitable for 'Rural-Residential' development. This is consistent with the current zoning of adjacent land to the east (Special Rural Zone 11 – Sheringa Park) and to the west (Special Rural Zone 4A – Mead Road, Kalgan). A lesser portion of Lot 193, roughly encompassing the watercourse and adjacent lower-lying terrain west of Mead Road, is shown as a 'General Agriculture' zone corridor extending southwards to Oyster Harbor.

Under Town Planning Scheme No 3 (City of Albany 1980) 'Special Rural' zones are a form of rural-residential development *to provide areas where members of the community who desire to live in a rural atmosphere may engage in a variety of activities which might include hobby farming, horse breeding, rural residential retreats and intensive agriculture if it is considered that such use is consistent with the preservation of the rural landscape and amenity.*

A proposed plan for subdivision needs to demonstrate that landform, vegetation and physical constraints have been taken into account in terms of the size and shape of proposed lots as well as road layout. This report seeks to address those requirements. It is based on a site inspection and soil survey conducted by Martin Wells of Land Assessment Pty Ltd during the period from the 17th to the 20th of March 2014, and an associated review of land resource and environmental planning and policy documents.

The capability of the land for Rural – Residential (Special Rural) development (including on-site effluent disposal) has been assessed in general accordance with the methodology outlined in Department of Agriculture and Food publications (van Gool et al 2005, Wells and King 1989) and with due consideration of the requirements of the Draft Country Sewerage Policy (Government of Western Australia 1999).

FIGURE 1a: LOCATION PLAN (over scheme zoning map)



Source: Adapted from City of Albany Town Planning Scheme No 3 Map 19 of 33.

FIGURE 1b: LOCATION PLAN (over aerial image)



Source: Ayton Baesjou Planning

2.0 NATURE AND CAPABILITY OF THE LAND

2.1 Hydrology

The subject land is part of the catchment area to Oyster Harbour. This is a regionally significant estuary threatened by eutrophication due to excessive nutrient input mainly from agricultural areas in the catchment (Water and Rivers Commission 1997).

The topography of the lower portion of the Oyster Harbour catchment area is dominated by a gently undulating plain sloping towards the coast. This area is incised by the King and Kalgan Rivers as well as by numerous smaller drainage lines. The southern and eastern portions of Lot 973 contain part of one such drainage line, Johnston Creek.

2.2 Geology

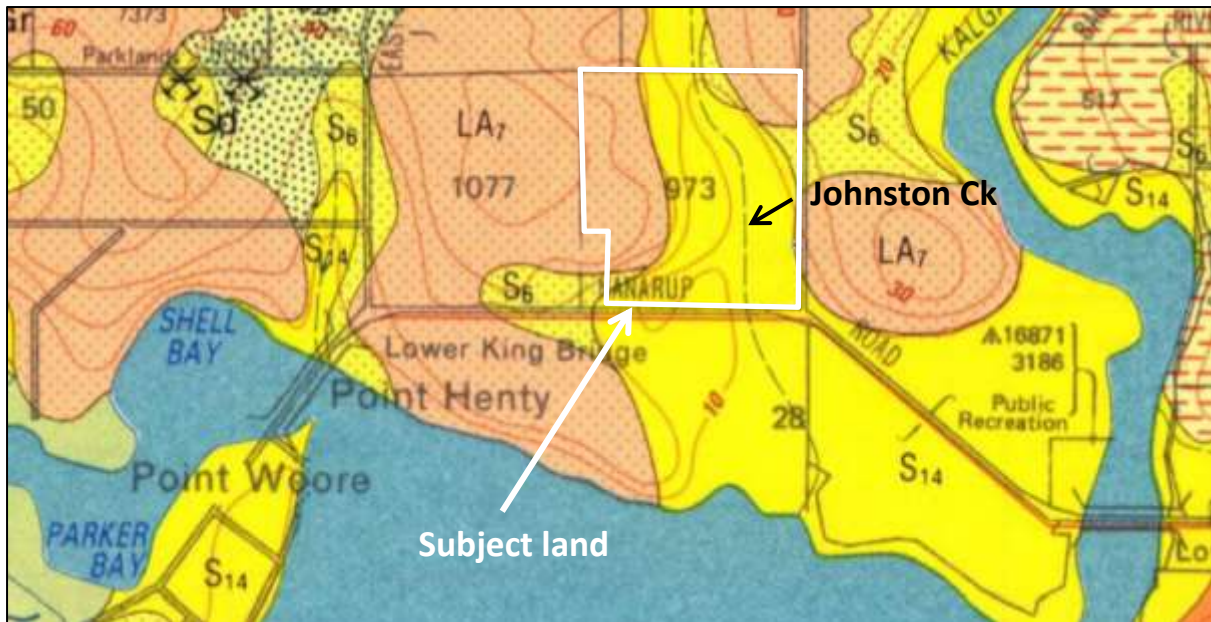
Geologically the area is underlain by Proterozoic rocks including granites and metamorphic gneiss which are exposed as hills along the coastal and near coastal fringe (Muhling and Brakel 1985). Tertiary marine sediments (Plantagenet group) lie above much of this basement rock, and a mantle of Cainozoic laterite extends over much of the gently undulating plain with Quaternary sand deposits in the valleys.

Environmental geology mapping, produced by the Geological Survey of Western Australia (Gozzard 1989), contains interpretive information for land use planning purposes. Figure 2 shows the geology of the subject area with Lot 493 encompassing areas of Cainozoic laterite (LA₇) in upland terrain to the west and north east, as well as Quaternary alluvium (S₁₄) associated with Johnston Creek in the valley floor.

Gozzard (1989) describes the Cainozoic laterite as being *massive, friable to strongly indurated, vesicular, some sand content, and being developed on siltstone of the Plantagenet Group. It provides variable foundation conditions and is usually excavated by blasting.* These factors are described as providing *possible problems associated with the use of the land for septic tanks* (i.e. excavation difficulties and limited soil material for absorption and purification of liquid effluent). The Quaternary alluvium is described as *Sand – white to pale grey, fine to medium, occasionally coarse, angular to subangular quartz, little fines, moderately sorted.* Although considered well drained, it is also described as having a *high watertable and being prone to flooding in part**.

* City of Albany Policy Manual (portion – *Development in Flood Prone Areas*) identifies areas adjacent to Oyster Harbour, but not affecting Lot 973.

FIGURE 2: GEOLOGY

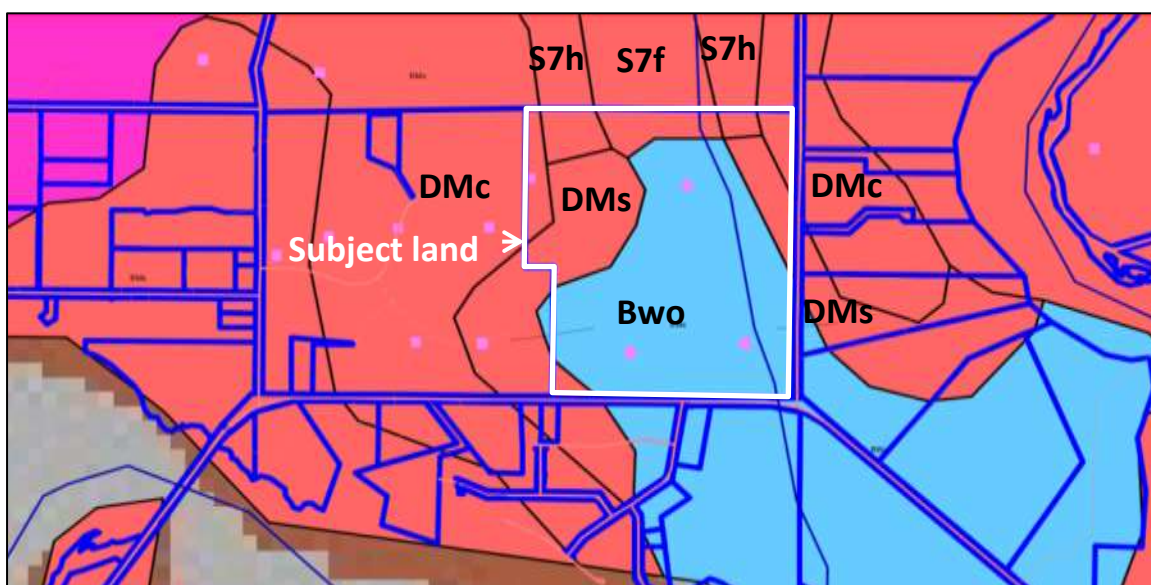


Source: Adapted from Environmental Geology Mapping Albany Sheet (Gozzard 1989).

2.3 Soil - Landscapes

A long history of weathering of the geological parent materials has resulted in a complex variety of soils and landforms as identified by CSIRO (Churchward et al 1988) and subsequently forming part of the Department of Agriculture and Food (DAFWA) soil-landscape mapping database from which broad-scale assessments of land use capability have been made. Figure 3 shows the relevant area.

FIGURE 3: SOIL LANDSCAPE MAPPING



Source: DAFWA (<http://spatial.agric.wa.gov.au/slip>) based on Churchward et al (1988).

Legend to Figure 3.

King (Kg) Soil Landscape System (Reddish brown colour) - *Dissected siltstone and sandstone terrain, on the southern edge of the Albany Sandplain Zone, with shallow gravels, sandy gravels, grey sandy duplex soils, and pale deep sands.*

DM -Dempster Subsystem - Ridges formed by dissection of lateritic plateau (upland plain)

DMc- Dempster crest phase - Sands and laterite on elongate crests.

DMs- Dempster slope phase - Sands and gravels on smooth slopes.

S7 – Minor Valley

S7h - slope phase – Deep sands and iron podzols on slopes.

S7f – floor phase – Swampy valley floor.

Torbay (Tb) Soil Landscape System (Blue colour) - *Narrow swampy coastal plain, on the southern edge of the Albany sandplain Zone. Non-saline wet soils and pale deep sands.*

Bw – Blackwater Subsystem - Plains with hummocks, linear dunes, and swamps

Bwo - Shallow gleyed duplex soils.

DAFWA have produced land capability interpretations based on this broad-scale mapping. Due to the inevitable degree of variability of landform and soil conditions within any broad-scale mapping unit, the DAFWA assessments utilise the concept of 'proportional capability classes'. Instead of assigning a single specific (high, moderate or low) capability rating to all areas of a particular map unit, a proportional assessment is used. This expresses the capability more conservatively as a range (e.g. 50-70%) of the total area of a map unit is expected to contain land of a certain capability rating. Table 1 shows the assessment results for the relevant broad-scale map units.

Essentially this broad interpretation indicates the upland (Dempster subsystem) areas are of moderate capability for un-sewered rural-residential development while the lower-lying terrain (mainly Blackwater subsystem) is of lower capability.

In relation to agricultural activity, all portions of Lot 973 are considered under the DAFWA assessment to be of low capability for cropping, however all but the lower capability Blackwater plain (unit Bwo) is of moderate capability for livestock grazing. The DAFWA assessment indicates valley slopes, DMs and S7h, could potentially be considered good horticultural land, although there is also the need to consider water supply for irrigation, and the identification of this portion of the subject land within the endorsed Local Planning Strategy (City of Albany 2010) as being provisionally suitable for non-agricultural land-use.

TABLE 1. BROAD-SCALE LAND CAPABILITY RATINGS

Map Unit	Perennial Horticulture (incl vines)	Annual Horticulture (vegetables)	Grazing	Cropping	Septic Tanks
Dempster Subsystem					
DMc	B1	B1	B2	C1	B2
Dms	A2	B1	B1	C2	B1
Minor Valley					
S7h	A2	B1	B1	C2	C2
S7f	C1	B2	B2	C2	C2
Blackwater Subsystem					
Bwo	C2	C2	C1	C2	C2

A1 = >70% has high capability; A2 = 50-70% high capability; B1 = >70% moderate to high capability; B2 = 50-70% moderate to high capability; C1= 50-70% low capability; and C2 = >70% low capability.

2.4 Topography and Land Use

Lot 973 encompasses portions of flat to gently sloping upland gravelly lateritic terrain to the west and north east, as well as the southern portion of a shallowly incised valley formed by Johnston Creek.

The sloping terrain between the valley floor and upland gravelly areas is predominantly sandy and gently inclined. The slope gradients are mostly less than 10%, apart from a patch of moderate to moderately steep terrain within the central west, most of which remains under remnant vegetation.

The valley floor is relatively narrow (< 200 m) at the northern end of the property but heading southwards it extends out into a broad alluvial plain fronting the full extent of the boundary with Nanarup Road. The valley floor is traversed in places by pen drains that have been excavated to reduce the risk of waterlogging on adjacent flats.

Lot 973 ranges in elevation from approximately 44 m AHD along the central western boundary with the adjacent Sheringa Park development, to a low point of around 5 m AHD within the valley floor near the intersection of Mead and Nanarup Roads.

The property is currently used for livestock (sheep) grazing and, apart from fencing and twelve functioning soakage dams (for stock watering), existing infrastructure is limited to some small stockyards, a machinery shed, and an unused residence.

2.5 Vegetation and Conservation Values

As shown in Figure 1b and site photographs, most of the property has been cleared to enable agricultural land use. Areas of exception include the remnant pockets of jarrah – marri - sheoak forest within the moderate to moderately steep slopes in the central western portion, and the moderate slopes in the north eastern corner, as well as some *Taxandria*, *Melaleuca* and *Agonis* species fringing the fenced creekline.

The condition of vegetation fringing the lower portion of Johnston Creek was assessed as part of the *Survey of the River Foreshores in the Oyster Harbour Catchment* (Water and Rivers Commission 1997) and determined to be predominantly grade C1 (Erosion prone and with instances of the weed *Taylorina* – *Psoralea pinnata*) within Lot 973 in 1997.

The Albany Regional Vegetation Survey, ARVS (Sandiford and Barrett 2010) identifies the major remnant areas as part of its vegetation unit 12 (Jarrah/Marri/Sheoak Laterite Forest). The small area of dense wetland vegetation within adjacent Lot 1 (just west of Lot 973 and contributing drainage water into the subject land) is part of ARVS vegetation unit 59 (*Taxandria juniperina* Closed Forest) and the southern portion of the fringing creekline vegetation is part of ARVS vegetation unit 38 (*Taxandria parviceps* Transitional Shrubland).

Although the ARVS results indicate that vegetation unit 12 (Jarrah/Marri/Sheoak Laterite Forest) that is present within Lot 973 has less than 10% of its ARVS extent occurring in conservation reserves, Sandiford and Barrett (2010) state that care needs to be used in interpreting this reservation status data. This is because significant areas of conservation reserve occur within the ARVS context area (a roughly 35 km radius of Albany encompassing about 209,000 ha) but outside the actual survey area (of around 125,400 ha).

Taking known vegetation occurrences in these reserves into account, none of the vegetation units within, or immediately adjacent to, the subject land can be considered poorly reserved on a local scale.

Notwithstanding the above, statements within the Local Planning Strategy (City of Albany 2010) and provisions under the Town Planning Scheme relating to adjacent developments (SRZs 4A and 11) indicate that retention of remnant vegetation is an important planning objective in all Special Rural Zones. Future clearing and location of building envelopes within vegetated portions of existing Lot 973 is therefore unlikely to be supported. Grazing associated with any hobby farming activity is also likely to be limited to areas of existing cleared land.

2.6 Land Unit Mapping

Given the broad scale of soil-landscape mapping depicted in Figure 3, some 'on-ground' variation can be expected in soil and landform conditions. More detailed survey and mapping of the site conditions was therefore undertaken as a basis for a 'property-specific' consideration of the capability of the land.

Soil and landform conditions within Lot 973 were surveyed in general accordance with the methodology outlined in Department of Agriculture and Food publications (van Gool et al 2005, Wells and King 1989). This involved examination of aerial photos followed by the field survey work during March 17 - 20. The soils were examined at twenty five preliminary soil hand auger observation sites (1 - 25) followed by a further twelve pit sites (A – L) excavated by backhoe to approximately 2 m depth where possible. Appendix A includes an aerial image with site locations and a results summary.

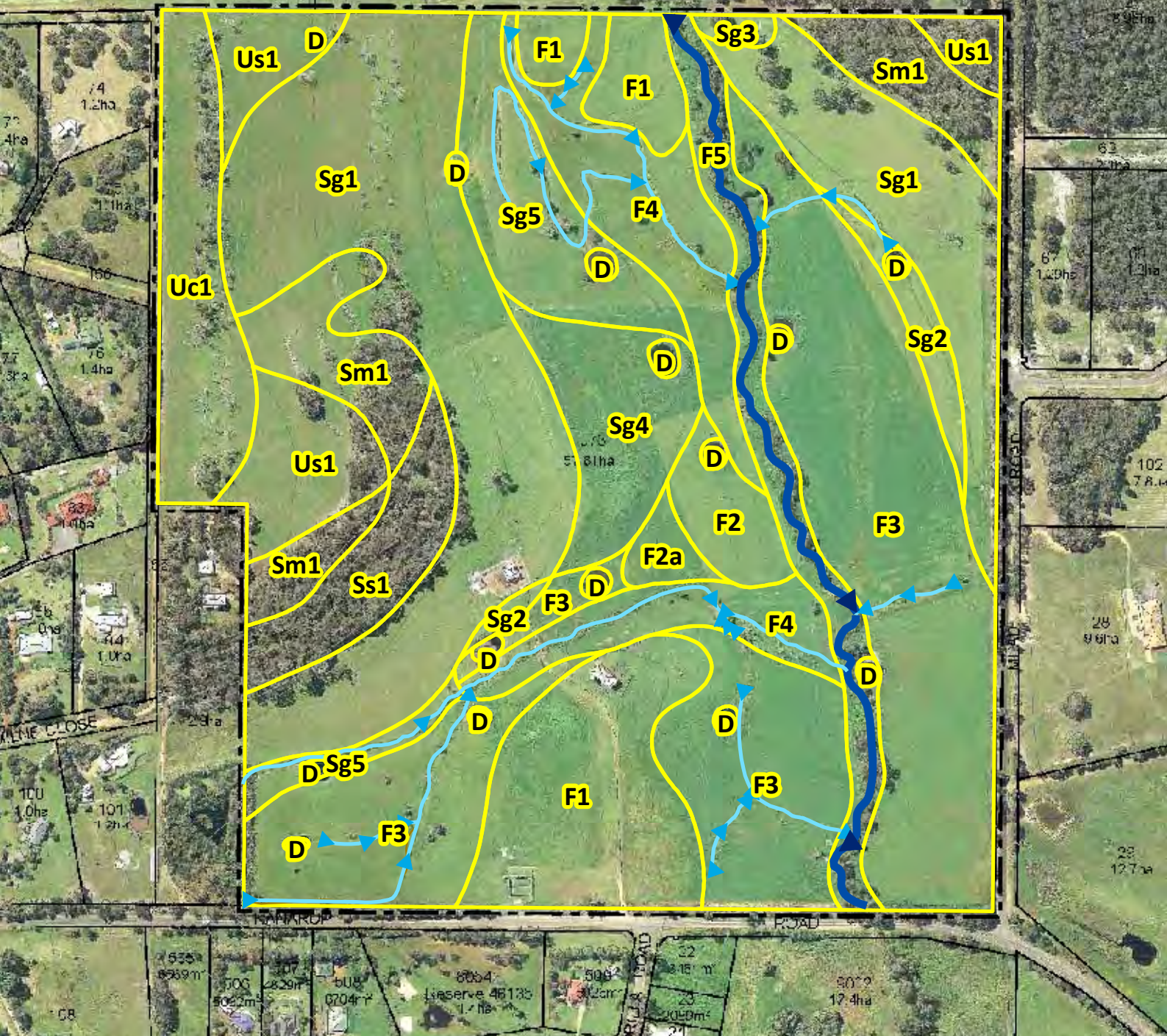
Sites, particularly for the excavated pits, were located to enable description of representative areas of each slope class and aerial photo pattern. Site positions were recorded using a hand-held GPS unit.

The soils were classified in accordance with the WA Soil Group nomenclature (Schoknecht 2002) and slope gradients were measured using a hand-held inclinometer correlated with available 2 m interval contour mapping.

Depth to groundwater was recorded where the watertable (perched or otherwise) was encountered within any of the excavated pits. There were no bores within Lot 973 from which additional depth to groundwater data might have been obtained.

The soil pit descriptions in Appendix B, as well as the geology and topography show that depth to groundwater will not be a limiting factor for un-sewered 'Special Rural' development within most of the slopes and upland areas of Lot 973. Depth to groundwater will however affect the type of on-site effluent disposal system, the amount of required soil fill material and, in some cases, preclude un-sewered development within the lower footslopes and valley floor portions of Lot 973.

The results of the more-detailed mapping of land units (soil-landform types) are shown overleaf in Figure 4. The sixteen delineated land units are described in the legend, and further appreciation of site conditions can be gained by reference to the photographs following Figure 4, as well as those accompanying the soil pit descriptions in Appendix B.





Upland terrain	Uc1 Crest; pale deep sands. Us1 Upper slopes (< 5% gradient); pale shallow sand over laterite.
Valley slopes	Ss1 Moderately steep (15 – 25%); shallow gravels or sand; surface laterite. Sm1 Moderate gradient (10-15%); shallow gravels or sand; surface laterite. Sg Gentle gradients (3 – 10%). Sg1 Pale deep sands; well drained. Sg2 Grey to yellow brown deep sands over clay; well drained. Sg3 Shallow sandy duplex soil; common granite outcrop. Sg4 Grey sandy duplex soil; humic pan over subsoil clay; imperfectly drained. Sg5 Semi wet soils (grey deep sands); imperfectly drained.
Valley floor (flats with < 3% gradient)	F1 Pale deep sands; moderately well drained F2 Grey sandy duplex soils; imperfectly drained. F2a Semi wet soils (sandy duplex); imperfect to poorly drained. F3 Semi wet soils (grey sand over humic pan or clay); imperfect to poorly drained. F4 Semi wet soils (grey sand over humic pan or clay); poorly drained. F5 Watercourse and immediate margins.
Drainage Features	D Dams or Soaks  Drainage channel (excavated)  Watercourse (seasonal)

Figure 4:
Land Units

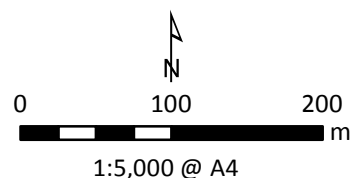




Photo 1. Property overview – looking west from Mead Rd showing broad valley floor (with network of drains) and predominantly gentle valley sideslopes.



Photo 2. Land unit Uc1 Upland crest with deep sands. View S from site 15.



Photo 3. Land unit Us1 Upland slope (site 11); shallow sand over laterite, then clay.



Photo 4. Land unit Ss1 (right). Moderately steep (vegetated) gravel slopes.



Photo 6. Land unit Sg1. Gentle slope with deep sands on eastern side of valley; site 7



Photo 5. Land unit Sm1. Moderate upper valley slope near site 13.



Photo 7. Land unit Sg1. Gentle slope with deep sands on western side of valley; site 9



Photo 8. Land unit Sg2. Gentle footslope (deep sands) adjacent valley floor.



Photo 10. Land unit Sg4. Footslope with imperfectly drained sandy duplex soil (site 21).



Photo 9. Land unit Sg3. Footslope with granite; East side of valley.



Photo 11. Land unit Sg5. Footslope; imperfectly drained deep, semi wet sands (site 20).



Photo 12. Land unit F1. Mod well drained valley floor (site 1 in background)



Photo 14. Land unit F2. Valley floor with imperfectly drained sandy duplex soil (site 22).



Photo 13 Land unit F1. Mod well drained valley floor (view S from site 18).



Photo 15. Land unit F2a. Floor; imperfectly to poorly drained sandy duplex soil (site 23).



Photo 16. Land unit F3. Floor; imperfectly to poorly drained sands (site 2-3).



Photo 18. Land unit F4. Valley floor; poorly drained semi wet sands (Pit site 1).



Photo 17. Land unit F3. Floor; imperfectly to poorly drained sands (site 5).



Photo 19. Land unit F5. Valley floor watercourse and immediate margins.



Photo 20. Drainage network within valley floor - SW part of property.



Photo 22. Land Unit D - Soakage dam – near sites 8 and B.



Photo 21. Drainage network within valley floor – central N part of property.



Photo 23. Densely vegetated wetland on adjacent Lot 1 at headwater of drains.

2.7 Key Soil Properties for Un-sewered Development

2.7.1 Permeability

The soil pit descriptions in Appendix B contain an estimated permeability (for the nominal 40 – 80 cm depth layer within the soil where, under natural conditions, a leach drain would be installed). Permeability status is based on consideration of soil texture and structure in accordance with indicative rates listed in the relevant National Standards document, AS/NZS 1547 (Standards Australia & Standards New Zealand 2000).

Permeability is rapid in all sandy soils, regardless of position in the landscape, although factors such as proximity to groundwater and nutrient retention ability then come into play when considering the potential for pollution of water resources. Duplex soils within footslope unit Sg4 and valley floor unit F2 have significantly restricted permeability which needs to be addressed through addition of soil fill, if such areas are to be used for on-site effluent disposal. Although inherently well drained and permeable, the shallow soils within units Us1, Sm1 and Ss1, also require the addition of soil fill material to achieve a satisfactory depth of permeable material.

2.7.2 Ability to retain nutrients

Subsoil sampling for PRI (Phosphorus Retention Index) analysis was undertaken at pit sites C, F, and G (see Appendix B) and auger (exposed excavation) site 11. The results are included in Appendix C and Table 2 overleaf.

Using criteria established by the Chemistry Centre of Western Australia (Allen and Jeffery 1990) the results show the deep sandy soils are very weakly adsorbing / retentive of phosphorus, regardless of being on elevated slopes or within the valley floor. By contrast the clay subsoil of the duplex soil types within lesser parts of the footslopes and valley floor, or underlying the laterite in upland areas, is very strongly adsorbing / retentive of phosphorus.

The PRI values for the pale grey sands on both the valley floors and the slopes fail to meet the recommended minimum PRI value of 5 under the *Consultation Draft of the Government Sewerage Policy* (Department of Health 2012) and hence consideration of proximity to water resources (surface and underground) is required in relation to the location and type of on-site effluent disposal systems to be used.

Although the clays significantly exceed the recommended minimum PRI value of 5, their restricted permeability needs to be addressed as discussed above.

TABLE 2: SUMMARY OF SOIL PRI TEST RESULTS

Site	Land unit (Soil Group)	Field Texture (subsoil)	PRI	Category*
C	F3 (Semi wet soil)	Sand	0.5	Very weakly adsorbing
F	Sg1 (Pale deep sand)	Sand	0.7	Very weakly adsorbing
G	F2 (Grey deep sandy duplex soil)	Medium to heavy clay	78.9	Very strongly adsorbing
11	Us1 (Pale shallow sand / over laterite then clay)	Medium clay	115.3	Very strongly adsorbing

* Allen and Jeffery (1990).

It should be noted that some Health Department approved 'alternative effluent disposal systems' offer an enhanced ability to retain nutrients in situations where the PRI of the natural soil is too low. Also, in situations where the use of conventional septic tanks and leach drains is limited by inadequate separation from an underlying water table, or inadequate depth above rock or other impermeable layer, yellow brown 'builders sand' is commonly used to raise the natural land surface to an appropriate level. This material, which would then surround the leach drains, generally has a free draining clayey sand texture and a moderate to strongly adsorbing PRI to prevent excessive leaching of nutrients (phosphorous in particular).

2.7.3 Depth to Water Table

As outlined within Australian Standards document AS/NZS 1547:2000, one of the purposes of requiring a professional evaluation of site conditions is to enable an informed assessment to be made of the potential for seasonal waterlogging to occur with the soil profile, and hence determine any effect depth to water table may have on site suitability for effluent disposal.

Assessment of waterlogging risk is outlined in capability assessment procedures (Wells and King 1989; van Gool et al 2005) and is based on standardised descriptions of morphological properties such as texture, colour and degree of mottling – properties that are observable regardless of the time of year an examination is made.

Soil profile morphology observations made from pit excavations within Lot 973, as well as consideration of topography and geology, lead to the following conclusions relating to possible seasonally high water table levels;

- greater than 2 metre depth within land units Uc1, Us1, Ss1, Sm1, and Sg1.
- approximately 1 – 1.5 metre depth within land units Sg2 and F1.
- approximately 1 – 1.5 metre depth within land units Sg3, Sg4 and F2 but with additional likelihood of soil waterlogging closer to the surface in winter due to slowly permeable clay subsoil.
- approximately 1 metre depth within land unit F3.
- approximately 0.5 - 1 metre depth within land units Sg5 and F2a, and with additional likelihood of soil waterlogging closer to the surface in winter due to seepage zones or surface depressions (inadequate surface runoff).
- less than 0.5 metre depth within land units F4, F5 and D.

In accordance with the draft Country Sewerage Policy (Government of Western Australia 1999) the depth to the highest seasonal or permanent water table from the underside of a wastewater disposal system shall be a minimum of 1.2 metres.

If leach drains associated with conventional septic tank systems are installed within the existing natural soil this effectively means a 2 metre minimum depth to the water table from the natural land surface. If Health Department approved 'alternative effluent disposal systems' (such as aerobic treatment units) are used there are variable, but lesser, depth to water table requirements, depending on system type and design.

In most situations the specified minimum depth to water can be exceeded by locating leach drains (or effluent irrigation areas for alternative systems) within soil fill material that is 'imported' onto the building envelope area to raise the natural land surface to an appropriate level. Subject to leach drain positioning relative to the original 'natural' land surface, the resulting systems are referred to as either being either fully or partially inverted. Considering the results summarized above, the use of soil fill and fully or partially inverted leach drain systems would be required for all valley floor units (F units), as well as footslope areas (units Sg2 - Sg5).

Notwithstanding the possible use of soil fill as an 'engineering solution', and irrespective of the type of on-site wastewater disposal system proposed, the draft Country Sewerage Policy specifies that the land should have a minimum depth to the seasonal or permanent water table from the natural ground surface of at least 0.5 metres. This precludes any on-site effluent disposal within just units F4, F5 and D.

2.8 Land Capability Assessment

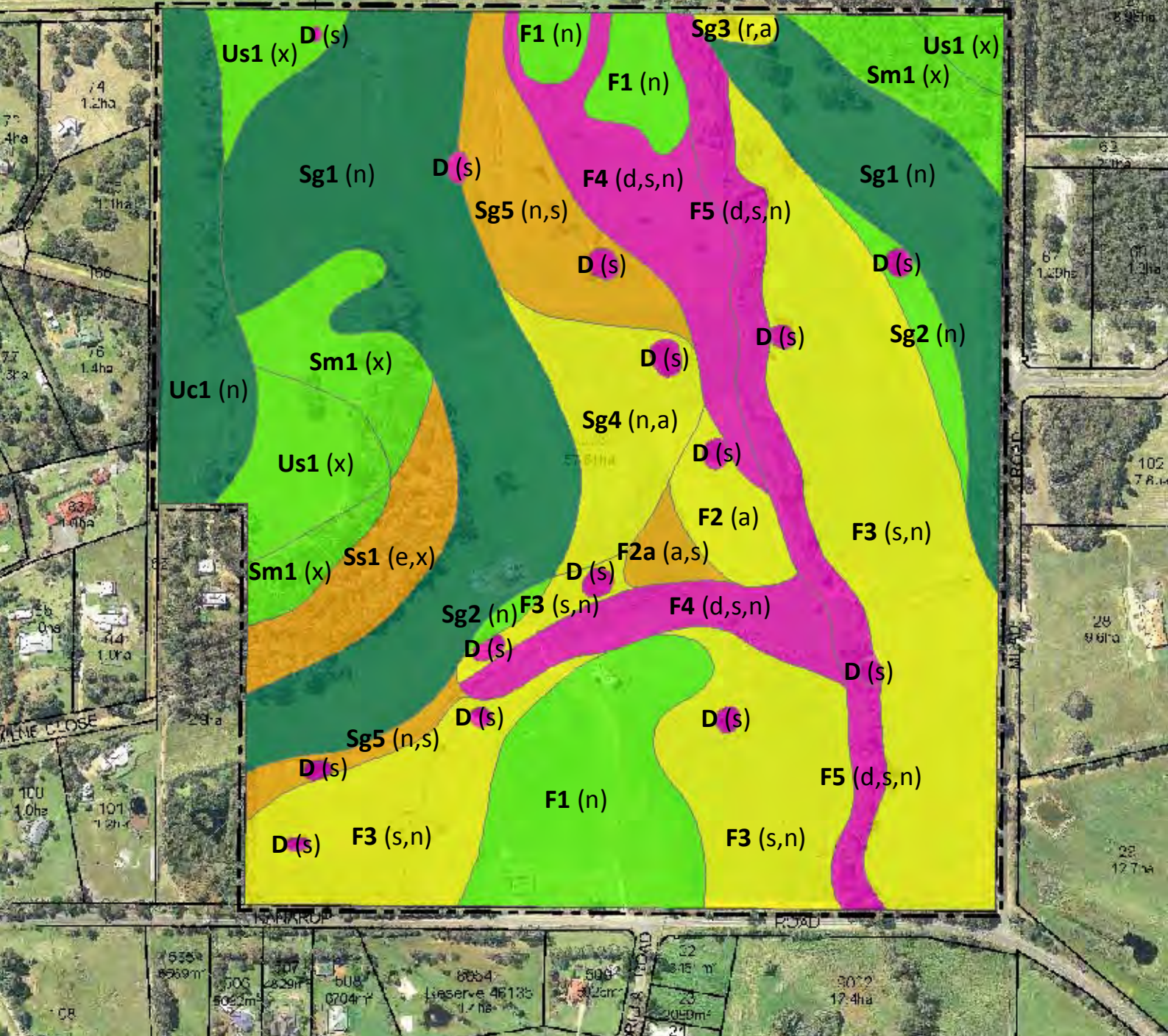
Land capability' is a term used to express the ability of land to support a proposed change in use with minimal risk of degradation to its soil and water resources.

For Lot 973, the proposed change in land use is from 'Rural' to un-sewered rural-residential ('Special Rural') development. This new zoning category dictates minimum lot sizes of 1 ha. Given the existing use of most of the land for livestock grazing, the primary 'new' land use activity with potential to affect soil and water resources is the location of additional houses and their associated systems for on-site effluent disposal.

The capability of the land for the proposed form of development has been assessed in general accordance with the methodology outlined in Department of Agriculture and Food (DAFWA) publications - van Gool et al (2005) and Wells and King (1989). Specific site requirements under the existing Draft Country Sewerage Policy (Government of Western Australia 1999) relating to soil permeability and separation from groundwater and surface waterbodies are also considered. In this regard the capability assessment expresses the results of the discussion in section 2.7 of 'Key Soil Properties for Un-sewered Development'.

A five class rating system from 'very high' capability (class one) to 'very low' capability (class five) is used here (albeit with intergrade categories). Land of 'very high' capability is considered to have few inherent physical land use limitations and minimal associated risk of land degradation. At the other end of the scale, 'very low' capability land is severely constrained by the inherent soil or landform conditions and there is an associated high risk of land or water degradation.

The capability assessment results for Lot 973 are shown in Figure 5 overleaf, and are further detailed in Table 3.



Land Capability

- Fair to High - Minor Limitations
- Fair - Moderate Limitations
- Fair to Low - Moderate to Significant Limitations
- Low - Significant Limitations
- Very Low - Severe Limitations

Land Units

Labels in bold
 Descriptions in Figure 4

Limitations

Labels in brackets
 a soil absorption ability (depth to clay)
 d drainage (stream pollution risk)
 e erosion risk
 n nutrient retention (poor)
 r rock outcrop (granite)
 s seepage and waterlogging
 x excavation difficulties (shallow depth to laterite)

Figure 5:
Land Capability Assessment for Rural-Residential Development

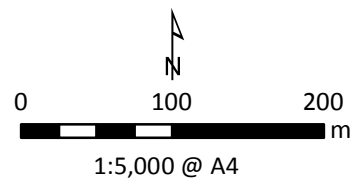


TABLE 3: LAND CAPABILITY ASSESSMENT – RURAL RESIDENTIAL DEVELOPMENT

Land Unit	Area (ha)	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
UPLAND TERRAIN						
Uc1	2.8	Crest; pale deep sands.	Fair to High		Limited nutrient retention or microbial purification ability of pale deep sands. Wind erosion risk if overstocked.	Conventional septic tanks and leach drains acceptable. Low nutrient retention ability but more than 100 m from any watercourse. See Attachment B Soil Pit Description Site K.
Us1	2.7	Upper slopes (< 5 % gradient); pale shallow sand over laterite	Fair		Excavation difficulties	Limited depth of natural soil and common surface lateritic stones and boulders. The underlying laterite is however relatively permeable (preferred drainage pathways), is usually underlain by nutrient retentive clay at > 1m depth (see Appendix A, Site 11). Adequate separation from groundwater given elevated landscape position. In light of the above, conventional septic tanks with leach drains located within imported sand fill (inverted leach drain system) should be acceptable. See Attachment B Soil Pit Description Site L.
MODERATE TO MODERATELY STEEP VALLEY SLOPES						
Ss1	1.7	Moderately steep slopes (15 – 25% gradient); shallow gravels or sand; surface laterite.	Low	Erosion risk (if cleared)	Excavation difficulties	All under remnant native vegetation. Council support for clearing unlikely.
Sm1	3.3	Moderate slopes (10-15%) soils as for Ss1.	Fair		Excavation difficulties	Partly vegetated. Refer to comments for unit Us1. Slightly more susceptible to erosion.

TABLE 3: LAND CAPABILITY ASSESSMENT – RURAL RESIDENTIAL DEVELOPMENT

Land Unit	Area (ha)	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
GENTLE VALLEY SLOPES (3 – 10% GRADIENT)						
Sg1	13.2	Pale deep sands; well drained.	Fair to High		Limited nutrient retention or microbial purification ability of pale deep sands. Wind erosion risk if overstocked.	Greater than 2 m depth to possible seasonally high water table. Conventional septic tanks and leach drains acceptable subject to appropriate setbacks* from watercourse and drains within lower terrain. * See Footnote to Table. See Attachment B Soil Pit Description Sites F and J.
Sg2	0.75	Grey to yellow brown deep sands over clay; well drained	Fair		Likely limited nutrient retention or microbial purification ability.	Limited area, with sands underlain by buried clay at greater than 1 m depth. Estimated 1 – 1.5 m depth to possible seasonally high water table. Septic tanks with partially inverted leach drains considered acceptable subject to appropriate setbacks* from watercourse and drains within lower terrain. * See Footnote to Table.
Sg3	0.18	Shallow sandy duplex soil; common granite outcrop.	Fair to Low	Rock outcrop (granitic)	Poor absorption ability of subsoil clay. Excavation difficulties, Minimal soil depth.	Very limited area. Estimated 1 – 1.5 m depth to possible seasonally high water table. If used for building envelope septic tanks with inverted leach drains considered acceptable subject to appropriate setbacks* from watercourse and drains within lower terrain. * See Footnote to Table.

TABLE 3: LAND CAPABILITY ASSESSMENT – RURAL RESIDENTIAL DEVELOPMENT

Land Unit	Area (ha)	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
Sg4	2.16	Grey sandy duplex soil; humic pan over subsoil clay; imperfectly drained.	Fair to Low	Poor absorption ability of subsoil clay.	Limited nutrient retention or microbial purification ability of topsoil.	<p>Estimated 1 – 1.5 metre depth to possible seasonally high water table. Relatively good surface drainage but with likelihood of soil waterlogging closer to the surface in winter due to slowly permeable clay subsoil.</p> <p>Subject to appropriate setbacks* from watercourse and drains within lower terrain, septic tanks with inverted leach drains should be acceptable. Alternative effluent disposal systems with nutrient retention ability preferable. * See Footnote to Table.</p> <p>See Attachment B Soil Pit Description Site H.</p>
Sg5	2.82	Semi wet soils (grey deep sands); imperfectly drained.	Low	Limited nutrient retention or microbial purification ability. Subject to seepage and waterlogging		<p>Estimated 0.5 - 1 metre depth to possible seasonally high water table but with additional likelihood of soil waterlogging closer to the surface in winter due to seepage zones. Drains within this unit alleviate waterlogging but provide rapid conduit for nutrients to watercourse.</p> <p>Best avoided for building envelopes, although may be considered acceptable subject to appropriate depth of fill, mandatory use of alternative effluent disposal systems, and meeting setback requirements*.</p> <p>* See Footnote to Table.</p>

TABLE 3: LAND CAPABILITY ASSESSMENT – RURAL RESIDENTIAL DEVELOPMENT

Land Unit	Area (ha)	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
VALLEY FLATS WITH < 3% GRADIENT						
F1	5.0	Pale deep sands; moderately well drained.	Fair		Limited nutrient retention or microbial purification ability	<p>Estimated 1 – 1.5 m depth to possible seasonally high water table. Although alternative effluent disposal systems with enhanced nutrient retention ability are environmentally preferable, septic tanks with partially inverted leach drains likely to be acceptable subject to meeting setback requirements*.</p> <p>* See Footnote to Table.</p> <p>See Appendix B Soil Pit Description Site B.</p>
F2	0.93	Grey sandy duplex soils; imperfectly drained.	Fair to Low	Poor absorption ability of subsoil clay.	Possible limited nutrient retention or microbial purification ability of topsoil.	<p>Estimated 1 – 1.5 metre depth to possible seasonally high water table but with additional likelihood of soil waterlogging closer to the surface in winter due to slowly permeable clay subsoil.</p> <p>Relatively good surface drainage but sand fill and septic tanks with inverted leach drains needed to achieve separation from slowly permeable subsoil clay, as well as water table. Alternative effluent disposal systems preferred. Setback requirements* need to be considered.</p> <p>* See Footnote to Table.</p> <p>See Attachment B Soil Pit Description Site G.</p>

TABLE 3: LAND CAPABILITY ASSESSMENT – RURAL RESIDENTIAL DEVELOPMENT

Land Unit	Area (ha)	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
F2a	0.4	Semi wet soils (sandy duplex); imperfect to poorly drained.	Low	Poor absorption ability of subsoil clay. Subject to soil waterlogging	Possible limited nutrient retention or microbial purification ability of topsoil.	<p>Estimated 0.5 - 1 metre depth to possible seasonally high water table but with additional likelihood of soil waterlogging closer to the surface in winter due to topography (depression area).</p> <p>Best avoided for building envelopes, although may be considered acceptable subject to appropriate depth of fill, mandatory use of alternative effluent disposal systems, and meeting setback requirements*.</p> <p>* See Footnote to Table.</p>
F3	14.54	Semi wet soils (grey sand over humic pan or clay); imperfect to poorly drained.	Fair to Low	Limited nutrient retention or microbial purification ability.	Subject to some soil waterlogging	<p>Drains within this unit alleviate waterlogging but provide rapid conduit for nutrients to watercourse.</p> <p>Estimated approx. 1 metre depth to possible seasonally high water table.</p> <p>Subject to appropriate setbacks* from watercourse and drains sand fill and septic tanks with inverted leach drains could be used however alternative effluent disposal systems with nutrient retention ability (and lesser required separation from groundwater) are preferred.</p> <p>* See Footnote to Table.</p> <p>See Attachment B Soil Pit Description Sites A, C, D and E.</p>

TABLE 3: LAND CAPABILITY ASSESSMENT – RURAL RESIDENTIAL DEVELOPMENT

Land Unit	Area (ha)	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
F4	4.2	Semi wet soils (grey sand over humic pan or clay); poorly drained.	Very Low	Stream pollution risk. Subject to soil waterlogging and seepage.	Limited nutrient retention or microbial purification ability	Avoid this area for building envelopes. Estimated less than 0.5 metre depth to possible seasonally high water table which <u>precludes</u> any on-site effluent disposal. Drains alleviate waterlogging but provide rapid conduit for nutrients to watercourse. See Attachment B Soil Pit Description Site I.
F5	2.55	Watercourse and immediate margins	Very Low	Contains watercourse; very high risk of pollution through inadequate microbial purification and nutrient loss from effluent disposal systems		Prohibitive for location of residence or on-site effluent disposal due to poor drainage and associated stream pollution risk. Depending on adjacent soil and type of on-site effluent disposal system, a 30 - 100 m setback needs to be applied *. * See Footnote to Table.
D	0.6	Dams or Soaks	Very Low	Inundated waterbody		Prohibitive for any residence or on-site effluent disposal. See footnote re setbacks.

Footnote: Setbacks - The landowner's experience and advice is that Johnston Creek is a seasonally active watercourse. Under environmental requirements contained in the draft Country Sewerage Policy, conventional effluent disposal systems located within sandy soils (with generally low nutrient retention ability) require a 100 m setback from seasonally flowing watercourses. A lesser (30 m) setback can apply to alternative effluent disposal systems with enhanced nutrient retention ability.

In relation to open agricultural drains or farm dams, the draft Country Sewerage Policy contains no specific setback requirements for effluent disposal systems. Although not yet endorsed, the consultation draft of the (new) Government Sewerage Policy (Department of Health 2011) specifies a minimum 6 m setback for all on-site effluent disposal systems from any open drainage channel.

For alternative effluent disposal systems, the Department of Health's Code of Practice document relating to Aerobic Treatment Units (Department of Health 2001) requires any surface irrigation disposal areas to be setback a minimum of 30 m from any dams used or available for human or animal consumption.

3.0 CONCLUSIONS

Provisions within Town Planning Scheme No 3 (Schedule I of City of Albany 1980) relating to the adjacent *Sheringa Park and Mead Road Kalgan* Special Rural Zones (SRZs 11 and 4A respectively) provide guidance on the key environmental planning matters in this portion of the City of Albany. They indicate the environmental objectives associated with the rezoning of Lot 973 should include;

- minimising nutrient export,
- minimising visual impact,
- retention of significant vegetation, and
- bushfire management control

These matters, and the effect of the land capability assessment on the proposed rezoning and subsequent subdivision, are addressed as follows;

3.1 Minimising nutrient export.

Given the sandy nature of the soils, and in common with the provisions applying to the adjacent *Sheringa Park* subdivision (SRZ 11), it is suggested that intensive agricultural pursuits such as piggeries and horticultural operations would not be permitted within a Special Rural zone over existing Lot 973. Given this, the remaining potential sources of nutrients associated with the proposed land use that might eventually find their way into Oyster Harbour, are on-site effluent disposal systems and livestock excrement.

3.1.1 On-site effluent disposal

Soil PRI analysis shows the in-situ soil material within most of the valley floor and the adjacent slopes is very weakly adsorbing and below the recommended minimum value of 5 under the *Consultation Draft of the Government Sewerage Policy* (Department of Health 2012).

Notwithstanding this, proximity to the water table within the valley floor will require leach drains to be either fully, or partially, inverted and hence located within free draining soil material brought onto the site. As this material is commonly 'builders sand' (part of a house pad) with a clayey sand texture, it is likely that the nutrient retention ability of the site would be somewhat enhanced by this soil fill material.

Additional protection against nutrient loss from on-site effluent disposal systems, within the valley floor should however be provided through a condition requiring the mandatory use of Health Department approved alternative effluent disposal systems

that have a phosphate removing capability. Condition 9 of the Specific Provisions relating to the adjacent *Sheringa Park* Special Rural Zone (11) provides an example (refer Schedule 1 of the Town Planning Scheme – City of Albany 1980).

Use of these alternative systems would also enable a lesser setback requirement to be applied from the seasonally active Johnston Creek (30 m compared to 100 m) and a lesser depth of fill to achieve required separation from the water table.

3.1.2 Keeping of livestock

Given the likely range in lot sizes (down to a minimum of 1 ha) and the susceptibility to nutrient loss (and wind erosion) of most of the soils, it is suggested that after rezoning and subdivision, the keeping of livestock is not permitted without specific approval from Council.

Where applications for the keeping of livestock are received by Council it is suggested that advice on stocking rates and land management requirements be sought from the Department of Agriculture and Food. In this regard it is considered likely that the keeping of livestock would generally only be permitted within larger sized lots occurring on the valley floor rather than smaller (1 ha) sized lots within the sandy slopes and upland areas.

3.1.3 Drainage

As shown in Figure 4, the valley floor contains a number of shallow open drains that have been formed to reduce the risk of waterlogging and improve the agricultural capability of the land. While fulfilling this function however, the drains also provide a conduit for the movement of nutrients leached from the soil or attached to suspended sediment, to pass into Johnston Creek and ultimately thereafter into Oyster Harbour.

Subject to the intended density of subdivision / development on the valley floor, a rationalization of the drainage network and the design and implementation of a water management system may need to be undertaken (in addition to effluent disposal setbacks and livestock controls) to further reduce the potential for nutrient export.

Condition 15 of the Specific Provisions relating to the adjacent *Mead Road, Kalgan* Special Rural Zone (4A) provides an example. In relation to Lot 973, such a condition could require stormwater to be dealt with according to aspects of the *Stormwater management manual for Western Australia* (Department of Water 2004 - 2007) that are relevant (cost effective) to Special Rural development such as establishment of vegetated buffer strips to drains .

3.2 Minimising visual impact.

The City of Albany Local Planning Strategy (2010) outlines the importance of considering visual impacts, particularly from recognised tourist routes. The southern boundary of Lot 973 is formed by Nanarup Road, and the effect of topography and limited roadside vegetation means that much of the proposed development will be visible (at right angles) to traffic travelling in either direction along this road refer Photos 24 and 25).

Visual impacts can be minimized by enhancing roadside vegetation (either within road reserve or on future lots), by protecting hillslope remnant vegetation (see upper left in photo 24) and by extrapolation of the existing building design, materials and colour provisions that currently apply to both adjacent Special Rural Zones (4A and 11 – refer Schedule 1 of Town Planning Scheme – City of Albany 1980).



Photo 24: View into existing Lot 973 from western portion of Nanarup Rd



Photo 25: View into existing Lot 973 from eastern portion of Nanarup Rd.

3.3 Retention of significant vegetation

None of the vegetation units within Lot 973 can be considered poorly reserved on a local scale. Notwithstanding this, future clearing and location of building envelopes within vegetated portions of the land is considered unlikely to be supported and any permitted livestock grazing is likely to be limited to areas of existing cleared land.

Although logical to retain in private ownership, protection and enhancement of riparian vegetation along the margins of Johnston Creek is recommended to minimise nutrient loss from adjacent future land use activity and to reduce the susceptibility to erosion noted in the earlier foreshore survey (Water and Rivers Commission 1997).

3.4 Bushfire management

As shown in Figure 4, there is only a limited area of remnant vegetation within existing Lot 973. However this vegetation occurs predominantly within moderate to moderately steep terrain (units Sm1 and Ss1) and therefore it is suggested that strategic, rather than individual boundary, firebreaks be designed and constructed to avoid erosion impacts.

3.5 Effect of land capability on plan of subdivision

A proposed plan for subdivision needs to demonstrate that landform, vegetation and physical constraints have been taken into account in terms of the size and shape of proposed lots as well as road layout. By reference to the land unit mapping (Figure 4) and the land capability assessment (Figure 5) the following comments are made;

1. Subject to minimizing any clearing of vegetation, the location of smaller lots (1 ha minimum) within existing Lot 973 is best suited to the better capability upland terrain (units Uc1, Us1) and valley slopes (units Sm1, Sg1 and Sg2).
2. The design of the adjacent *Sheringa Park* Special Rural Zone (to the west) enables a loop road to be created within the higher portion of the subject land although this would require passage through existing Lot 1 from the south western portion of existing Lot 973. Two new lots would then be created from existing Lot 1, with the road extension from Milne Close requiring minor clearing within (extrapolated) land unit Ss1.

3. The potential new lot to the south of that extension from Milne Close contains a wetland but with mandatory use of an alternative effluent disposal system a residence could be located within that lot within suitable (extrapolated) land unit Sg2.
4. Within existing Lot 973 larger sized lots will be needed within the valley floor (F units) and footslopes (units Sg3, Sg4 and Sg5) to accommodate the location of future residences and their on-site effluent disposal systems (alternative, nutrient retentive systems) in a manner which provides the following;
 - None within any areas of very low capability land (units F4, F5 and D).
 - A 30 m minimum setback from the seasonal watercourse* (Johnston Creek – within unit F5).
 - A 6 m minimum setback from the excavated drainage channels.
 - A 30 m minimum setback from any dam which is to be retained and available for livestock watering, and
 - An appropriate level of soil fill material to enable adequate separation from estimated highest water table levels, or slow permeability clays, from the base of leach drains (for amended soil effluent disposal systems) or from irrigation surfaces (for aerobic treatment units).**

* Horizontal setback is in accordance with Draft Country Sewerage Policy although special provisions currently applying to the adjacent *Sheringa Park* SRZ (11) indicate Council might apply a 50 m minimum setback, possibly based on interpretation of Johnston Creek as a permanent watercourse.

** Vertical setbacks (separation from highest water table) vary with type and design of alternative system – refer Code of Practice for ATU's (Department of Health 2001). Estimated highest water table levels are between 0.5 and 1 m for units F2a and Sg5, around 1 m for unit F3, and between 1 and 1.5 m for units F1, F2, Sg3 and Sg4. Slow permeability subsoil clay at around 50 cm depth also needs to be taken into consideration within units F2 and Sg4.

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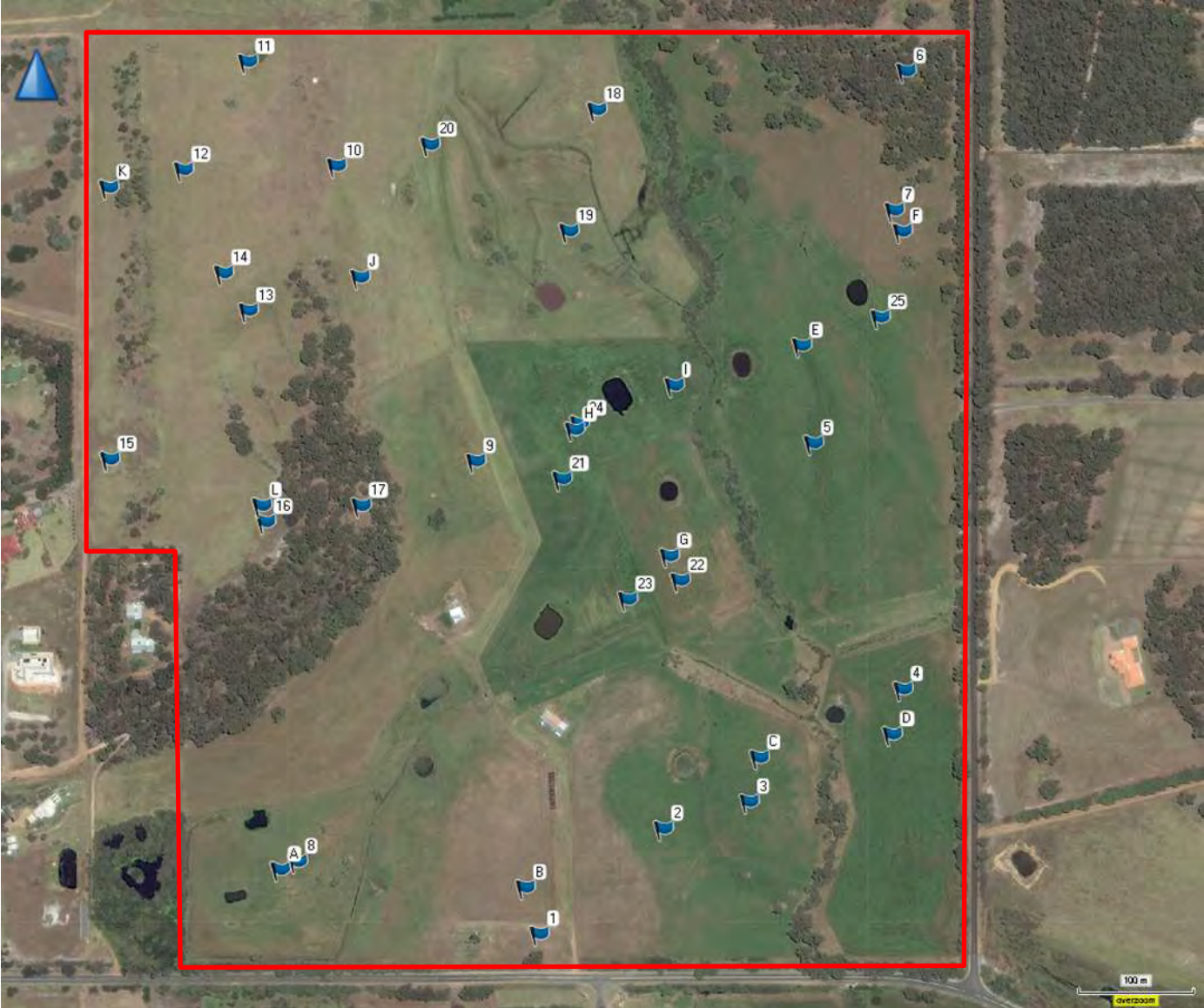
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APPENDIX A:

SITE LOCATIONS & RESULTS SUMMARY

APPENDIX A: SITE LOCATIONS & RESULTS SUMMARY



Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Site 1	50 H 587904	6132953	11 m	Bwo	Valley floor Slope 1-3%	Pale deep sand	Grey siliceous sand.	F1
Site 2	50 H 588012	6133043	8 m	Bwo	Valley floor Slope 3 - 5%	Semi wet soil	Grey siliceous sand with slightly mottled subsoil	F3
Site 3	50 H 588086	6133066	6 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey siliceous sand with slightly mottled subsoil and weak humic or coffee rock pan at 90 cm	F3
Site 4	50 H 588220	6133162	7 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey siliceous sand with watertable at approx. 1 m	F3
Site 5	50 H 588144	6133374	8 m	Bwo	Valley floor slope 1-3%	Semi wet soil	With minor subsoil ferruginous gravel and very weak humic or coffee rock pan at 45 cm and moist subsoil	F3
Site 6	50 H 588226	6133693	27 m	Dc	Upper slope 5 %	Pale shallow sand	Grey sand over yellow brown sand over laterite at 20cm	Us1
Site 7	50 H 588215	6133574	17 m	Ds	Mid slope 5 – 10%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1
Site 8	50 H 587696	6133017	10 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey sand over light yellow brown clay at 90 cm	F3
Site 9	50 H 587852	6133360	18 m	Bwo	Lower slope 5-10%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1
Site 10	50 H 587733	6133615	26 m	Ds	Mid slope 10-15%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1

Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Site 11	50 H 587657	6133705	30 m	S7h	Upper slope 3 - 5%	Pale shallow sand	Grey sand over laterite at 25cm then mottled yellow brown clay at greater than 1 m.	Us1
Site 12	50 H 587601	6133612	37 m	S7h	Upper slope 5-10%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1
Site 13	50 H 587656	6133491	31 m	Ds	Upper slope / spur 5-10%	Shallow gravel	Yellow brown sandy matrix and occasional surface laterite.	Sm1
Site 14	50 H 587635	6133524	32 m	Ds	Upper slope 5-10%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1
Site 15	50 H 587536	6133364	43 m	Dc	Upland crest Slope 1-3%	Pale deep sand	Grey siliceous sand; rapidly drained	Uc1
Site 16	50 H 587670	6133309	38 m	Ds	Upper slope 3 -5%	Pale shallow sand	Grey sand over laterite at 20 cm. Few surface laterite boulders	Us1
Site 17	50 H 587753	6133323	30 m	Ds	Mid slope 21%	Pale shallow sand	Grey sand over laterite. Few to common surface laterite boulders	Ss1
Site 18	50 H 587959	6133662	10 m	S7f	Valley floor slope 1 – 3%	Pale deep sand	Grey siliceous sand.	F1
Site 19	50 H 587934	6133558	9 m	Bwo	Valley floor slope 1 – 3%	Wet soil	Grey siliceous sand with humic surface and watertable at approx. 0.5 m	F4
Site 20	50 H 587814	6133633	15 m	Bwo	Lower slope 5 – 10%	Semi wet soil	Grey siliceous sand with humic surface ; watertable at > 0.5 m	Sg5
Site 21	50 H 587926	6133344	12 m	Bwo	Lower slope 3 - 5%	Pale shallow sand / Grey deep sandy duplex	Grey siliceous sand over gritty humic pan at > 70 cm depth, and then mottled clay	Sg4

Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Site 22	50 H 588028	6133257	9 m	Bwo	Valley floor slope 1 – 3%	Grey shallow sandy duplex	Gritty coarse loamy sand to sandy loam over mottled medium clay at 20 cm	F2
Site 23	50 H 587982	6133241	8 m	Bwo	Valley floor slope 1 – 3%	Semi wet soil / Grey deep sandy duplex	Grey sand over mottled light grey clay at 50 cm	F2a
Site 24	50 H 587942	6133392	11 m	Bwo	Lower slope 3 - 5%	Pale shallow sand / Grey deep sandy duplex	Grey siliceous sand over gritty humic pan at > 30 cm depth, and then mottled clay	Sg4
Site 25	50 H 588202	6133482	10 m	Ds	Lower slope 3 - 5%	Pale deep sand?	Grey shallow sand over buried yellow brown deep sandy duplex. Clay at 105 cm. Effective grey deep sand	Sg2
Pit A	50 H 587681	6133010	10 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey sand with mottled subsoil, weak iron organic pan and over light yellow brown clay at 105 cm	F3
Pit B	50 H 587892	6132993	11 m	Bwo	Very low rise within valley floor Slope 1-3%	Pale deep sand	Grey siliceous sand with watertable at > 150 cm.	F1
Pit C	50 H 588095	6133104	6 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey siliceous sand with slightly mottled subsoil and humic or coffee rock pan at 140 cm. Watertable at > 1.5m	F3
Pit D	50 H 588210	6133123	6 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey siliceous sand with slightly mottled subsoil and watertable at 1 – 1.5 m	F3

Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Pit E	50 H 588134	6133458	8 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey siliceous sand with mottled subsoil and watertable at 1 – 1.5 m	F3
Pit F	50 H 588222	6133556	17 m	Ds	Mid Slope 5 – 10%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1
Pit G	50 H 588019	6133278	9 m	Bwo	Valley floor Slope 1-3%	Grey deep sandy duplex	Gritty coarse loamy sand over mottled medium to heavy clay at 35 cm. (highly weathered granite remnant)	F2
Pit H	50 H 587938	6133387	12 m	Bwo	Lower slope 3 - 5%	Grey deep sandy duplex	Grey siliceous sand over gritty humic pan at 40 cm depth, and then mottled clay	Sg4
Pit I	50 H 588024	6133424	8 m	Bwo	Valley floor Slope 1-3%	Semi wet soil	Grey siliceous sand with mottled subsoil and watertable at 0.5 - 1 m	F4
Pit J	50 H 587753	6133519	24 m	Ds	Mid slope 8 - 10%	Pale deep sand	Grey siliceous sand; rapidly drained	Sg1
Pit K	50 H 587536	6133598	41 m	Dc	Upland crest Slope 1-3%	Pale deep sand	Grey siliceous sand; rapidly drained	Uc1
Pit L	50 H 587667	6133323	38 m	Ds	Upper slope 3-5%	Pale shallow sand	Grey sand over pale yellow gravelly sand over laterite at 50 cm. Few surface boulders	Us1

FOOTNOTES 1. Sites 1 – 25 are hand auger observations. Pits A – L are excavated soil pit observations. 2. **Soil-landscape** units are from 1: 100 000 scale DAFWA mapping. 3. **Landform** descriptors as described by van Gool et al (2005). 4. **Soils** classified to WA Soil Groups (Schoknecht (2002)).

APPENDIX B

SOIL PIT DESCRIPTIONS

APPENDIX B

SOIL PIT DESCRIPTIONS



Site Number: A 50 H 587681 6133010	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F3
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Landform: Valley floor (slope 1-3%)

	WA Soil Group: <i>Semi wet soil (poor sand over clay – effective duplex)</i>	
	Depth	Description
	0 – 8 cm	Very dark grey (10YR 3/1) organic loamy sand , apedal, single grain with sandy fabric; clear boundary to;
	8 – 32	Dark grey (10YR 4/1) fine sand ; apedal, single grain with sandy fabric; gradual to;
	32 - 65	Grey (10YR 5/1) fine sand ; with few faint brown mottles; apedal, single grain with sandy fabric; gradual boundary to;
	65 – 95	Greyish brown (10YR 5/2) sand ; with few distinct dark brown mottles; apedal, single grain with sandy fabric; gradual boundary to;
	95–105	Humic pan – very weakly cemented; Dark greyish brown (10YR 4/2) loamy sand texture; massive with earthy fabric; gradual b'ndry to;
105-150 +	Light yellowish brown (2.5Y 6/4) light to medium clay ; with common large distinct red mottles and weak polyhedral structure with rough ped fabric and very few medium ferruginous gravels.	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3 m/day (Rapidly drained) but less permeable clay within a further 50 cm depth. **Comment:** Sand fill and septic tanks with inverted leach drains needed. Alternative effluent disposal systems with nutrient retention ability (and lesser required separation from groundwater) preferred.

Site Number: B 50 H 587892 6132993	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F1
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Landform: Very low rise within valley floor (slope 1-3%)

	WA Soil Group: <i>Pale deep sand.</i>	
	Depth	Description
	0 – 3 cm	Very dark grey (10YR 3/1) loamy sand , massive with earthy fabric; clear boundary to;
	3 – 35	Dark grey (10YR 4/1) sand ; apedal, single grain with sandy fabric; gradual boundary to;
	35 – 65	Light grey (10YR 7/1) sand ; apedal, single grain with sandy fabric; gradual boundary to;
	65 – 120	Light brownish grey (10YR 6/2) sand with few distinct dark grey mottles; apedal, single grain with sandy fabric; gradual boundary to;
	120 -180+	Greyish brown (10YR 5/2) sand with common dark grey mottles; apedal, single grain with sandy fabric.

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3 m/day (Rapidly drained). **Comment:** Standing water at 180 cm; later rising to 165 cm. Minor sand fill and septic tanks with partially inverted leach drains recommended.

Site Number: C 50 H 588095 6133104	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F3
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Landform: Valley floor (slope 1-3%)

	WA Soil Group: <i>Semi wet soil (deep grey sand with underlying humic pan or coffee rock)</i>		
	<table border="1"> <thead> <tr> <th>Depth</th> <th>Description</th> </tr> </thead> </table>	Depth	Description
	Depth	Description	
	<table border="1"> <tbody> <tr> <td>0 – 15 cm</td> <td>Black (10YR 2/1) organic loamy sand; massive with earthy fabric; clear boundary to;</td> </tr> </tbody> </table>	0 – 15 cm	Black (10YR 2/1) organic loamy sand ; massive with earthy fabric; clear boundary to;
	0 – 15 cm	Black (10YR 2/1) organic loamy sand ; massive with earthy fabric; clear boundary to;	
	<table border="1"> <tbody> <tr> <td>15 – 35</td> <td>Very dark grey (10YR 3/1) sand; apedal, single grain with sandy fabric; clear boundary to;</td> </tr> </tbody> </table>	15 – 35	Very dark grey (10YR 3/1) sand ; apedal, single grain with sandy fabric; clear boundary to;
	15 – 35	Very dark grey (10YR 3/1) sand ; apedal, single grain with sandy fabric; clear boundary to;	
<table border="1"> <tbody> <tr> <td>35 – 65</td> <td>Greyish brown (10YR 5/2) sand; apedal, single grain with sandy fabric; common dark brown mottles; gradual boundary to;</td> </tr> </tbody> </table>	35 – 65	Greyish brown (10YR 5/2) sand ; apedal, single grain with sandy fabric; common dark brown mottles; gradual boundary to;	
35 – 65	Greyish brown (10YR 5/2) sand ; apedal, single grain with sandy fabric; common dark brown mottles; gradual boundary to;		
<table border="1"> <tbody> <tr> <td>65 – 140</td> <td>Light grey (10YR 7/1) sand; apedal, single grain with sandy fabric; few dark brown mottles; gradual boundary to;</td> </tr> </tbody> </table>	65 – 140	Light grey (10YR 7/1) sand ; apedal, single grain with sandy fabric; few dark brown mottles; gradual boundary to;	
65 – 140	Light grey (10YR 7/1) sand ; apedal, single grain with sandy fabric; few dark brown mottles; gradual boundary to;		
<table border="1"> <tbody> <tr> <td>140- 170</td> <td>Humic pan (coffee rock) – moderately cemented; very dark brown (10YR 2/2) loamy sand texture; gradual boundary to,</td> </tr> </tbody> </table>	140- 170	Humic pan (coffee rock) – moderately cemented; very dark brown (10YR 2/2) loamy sand texture; gradual boundary to,	
140- 170	Humic pan (coffee rock) – moderately cemented; very dark brown (10YR 2/2) loamy sand texture; gradual boundary to,		
<table border="1"> <tbody> <tr> <td>170 –180 +</td> <td>Humic pan (coffee rock) – moderately cemented; very dark brown (10YR 2/2) gritty loamy sand texture; with quartz fragments and seepage</td> </tr> </tbody> </table>	170 –180 +	Humic pan (coffee rock) – moderately cemented; very dark brown (10YR 2/2) gritty loamy sand texture; with quartz fragments and seepage	
170 –180 +	Humic pan (coffee rock) – moderately cemented; very dark brown (10YR 2/2) gritty loamy sand texture; with quartz fragments and seepage		

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained) but less permeable clay likely below humic pan. **Comment:** Standing water at 180 cm; later rising to 160 cm. Sand fill and septic tanks with inverted leach drains needed. Alternative effluent disposal systems with nutrient retention ability (and lesser required separation from groundwater) preferred.

Site Number: D 50 H 588210 6133123	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F3
--	--	----------------------



Landform: Valley floor (slope 1-3%)

	WA Soil Group: Semi wet soil (deep grey sand)	
	Depth	Description
	0 – 25cm	Very dark greyish brown (10YR 3/2) sand to loamy sand , massive with earthy fabric; clear boundary to;
	25 – 60	Dark grey (10YR 4/1) sand ; apedal, single grain with sandy fabric; gradual boundary to;
	60 – 125	Light grey (10YR 7/1) sand with common dark grey brown mottles; apedal, single grain with sandy fabric; clear boundary to;
125-130 +	Light grey (10YR 7/1) sand with common dark grey brown mottles with seepage input.	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained) but watertable at just over 1 m depth. **Comment:** Standing water at 130 cm; later rising to 115 cm. Sand fill and septic tanks with inverted leach drains needed. Alternative effluent disposal systems with nutrient retention ability (and lesser required separation from groundwater) preferred.

Site Number: E 50 H 588134 6133458	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F3
--	--	----------------------



Landform: Valley floor (slope 1-3%)

	WA Soil Group: <i>Semi wet soil (deep grey sand)</i>	
	Depth	Description
	0 – 5 cm	Very dark grey (10 YR 3/1) organic loamy sand , massive with earthy fabric; clear boundary to;
	5 – 25	Grey (10YR 5/1) sand ; apedal, single grain with sandy fabric; gradual boundary to:
	25 – 90	Light grey (10YR 7/1) sand ; apedal, single grain with sandy fabric; few fine (root channel) mottles; gradual boundary to;
	90 – 155	Light grey (10YR 7/1) sand ; moist with common grey brown mottles, apedal, single grain with sandy fabric; clear boundary to;
155–180 +	As above with seepage input	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained) but watertable at over 1 m depth. **Comment:** Standing water at 170 cm; later rising to 150 cm. Sand fill and septic tanks with inverted leach drains needed. Alternative effluent disposal systems with nutrient retention ability (and lesser required separation from groundwater) preferred.

Site Number: F 50 H 588222 6133556	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Sg1
--	---	-----------------------



Landform: Mid slope (5 - 10 % gradient)

	WA Soil Group: <i>Pale deep sand. (deep grey sand)</i>	
	Depth	Description
	0 – 5 cm	Very dark grey (10YR 3/1) sand ; apedal, single grain with sandy fabric; clear boundary to;
	5 – 30	Grey (10YR 5/1) sand ; apedal, single grain with sandy fabric;; gradual boundary to;
30 – 180+	White (10YR 8/1) sand; apedal, single grain with sandy fabric;	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained). **Comment:** Conventional septic tanks and leach drains acceptable subject to appropriate setbacks from watercourse and drains within lower terrain. Lesser setbacks can apply to Alternative effluent disposal systems with nutrient retention ability.

Site Number: G 50 H 588019 6133278	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F2
--	--	----------------------



Landform: Valley floor (slope 1-3%)

	WA Soil Group: <i>Grey deep sandy duplex.</i>	
	Depth (cm)	Description
	0 – 15	Very dark greyish brown (10YR 3/2) coarse gritty loamy sand , massive with earthy fabric; clear boundary to;
	15 – 40	Dark yellowish brown (10YR 4/4) coarse gritty sand ; apedal, single grain with sandy fabric; clear boundary to;
40–110+	Light grey (2.5Y 7/1) medium to heavy clay ; gritty with few distinct grey mottles; strong polyhedral structure with smooth ped fabric.	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) 0.06 – 0.5 m/day (Very poorly drained). **Comment:** Highly weathered granite remnant. Sand fill and septic tanks with inverted leach drains needed. Alternative effluent disposal systems with nutrient retention ability and lesser required separation from groundwater or underlying low permeability clay preferred.

Site Number: H 50 H 587938 6133387	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: Sg4
--	--	-----------------------



Landform: Lower slope (3 - 5% gradient)

	WA Soil Group: <i>Grey deep sandy duplex. (poor grey sand over humic pan then clay).</i>	
	Depth	Description
	0– 10cm	Very dark grey (10YR 3/1) organic loamy sand ; massive with earthy fabric; clear boundary to;
	10– 40	Dark grey (10YR 4/1) sand ; apedal, sandy fabric; gradual boundary to;
	40 - 50	Humic pan – strongly cemented with gritty pockets; Very dark brown (10YR 2/2) abrupt boundary to;
	50 - 85	Light grey (10YR 7/1) medium clay with common large grey and orange mottles; weak polyhedral structure; gradual boundary to;
85 - 120+	Light bluish grey (5B 7/1) medium to heavy clay with common fine orange and yellowish brown mottles; weak polyhedral structure.	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) 0.06 – 0.5 m /day (Very poorly drained). **Comment:** Possibly shallow humic sand over clay (buried weathered granite?). Sand fill and septic tanks with inverted leach drains needed. Alternative effluent disposal systems with nutrient retention ability and lesser required separation from groundwater or underlying low permeability clay preferred.

Site Number: I 50 H 588024 6133424	Soil landscape mapping: Torbay System - Blackwater gleyed duplex phase (Bwo)	Land unit: F4
--	--	----------------------



Landform: Lower terrace with valley floor (slope 1-3%)

	WA Soil Group: <i>Semi wet soil</i>	
	Depth	Description
	0– 5cm	Very dark grey (10YR 3/1) organic sandy loam ; massive with earthy fabric; clear boundary to;
	5– 20	Dark grey (10YR 4/1) loam fine sandy ; massive with earthy fabric; clear boundary to;
	20 – 35	Light brownish grey (10YR 6/2) sand , few faint brown mottles; apedal, sandy fabric; gradual boundary to;
	35 - 45	Greyish brown (10YR 5/2) sand , apedal, sandy fabric; few to common weathered ferruginous gravels;
45- 80+	Grey (10YR 6/1) sand , apedal, sandy fabric; common distinct brown mottles.	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained) but watertable at less than 1 m depth. **Comment:** Standing water at 80 cm; Likely to be at less than 50 cm depth from natural land surface in winter and therefore unsuitable for any form of on-site effluent disposal under the current Draft Country Sewerage Policy.

Site Number: J 50 H 587753 6133519	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Sg1
--	---	-----------------------



Landform: Mid slope (8 – 10 % gradient)

	WA Soil Group: <i>Pale deep sand.</i> (<i>deep loose grey sand</i>)	
	Depth	Description
	0– 15cm	Grey (10YR 5/1) sand ; apedal, single grain with sandy fabric; gradual boundary to;
	15– 200+	White (10YR 8/1) sand ; apedal, single grain with sandy fabric;

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained). **Comment:** Conventional septic tanks and leach drains acceptable subject to appropriate setbacks from watercourse and drains within lower terrain. Lesser setbacks can apply to Alternative effluent disposal systems with nutrient retention ability.

Site Number: K 50 H 587536 6133598	Soil landscape mapping: King System - Dempster crest Phase (Ds)	Land unit: Ucl
--	---	-----------------------



Landform: Crest (1- 3% gradient)



WA Soil Group: *Pale deep sand.* (*deep loose grey sand over laterite*)

Depth	Description
0– 12cm	Grey (10YR 5/1) sand ; apedal, single grain with sandy fabric; gradual boundary to;
12– 150	White (10YR 8/1) sand ; apedal, single grain with sandy fabric;
150+	Laterite. (Backhoe refusal)

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Rapidly drained) but over much less permeable rock (laterite) at 1.5m depth.
Comment: Conventional septic tanks and leach drains acceptable. Low nutrient retention ability but well away from any watercourse.

Site Number: L 50 H 587667 6133323	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Us1
--	---	-----------------------



Landform: Upper slope (3-5% gradient)

	WA Soil Group: <i>Pale shallow sand (over gravel or laterite /ironstone).</i>	
	Depth	Description
	0– 10 cm	Dark grey (10YR 4/1) sand ; apedal, sandy fabric; clear boundary to;
	10– 30	Grey (10YR 6/1) sand ; apedal, sandy fabric; many fine to medium sized ferruginous gravels; clear boundary to;
	30 – 50	Very pale brown (10YR 7/3) sand ; apedal, sandy fabric; common lateritic coarse gravel and stones; abrupt boundary to;
50+	Laterite. (Backhoe refusal)	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) Not applicable – below soil material. **Comment:** Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

APPENDIX C

SOIL PRI TEST RESULTS



ANALYSIS REPORT

Lab No	WPS14166	WPS14167	WPS14168	WPS14169	WPS14170	WPS14171	WPS14172
Name	C4	FB	GB	MB	OB2	RB	I1B
Code	31/3/14	31/3/14	31/3/14	31/3/14	31/3/14	31/3/14	31/3/14
Customer	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS
Depth	0-10	0-10	0-10	0-10	0-10	0-10	0-10
Phosphorus Retention Index	0.5	0.7	78.9	12.5	9.5	5.5	115.3

Appendix B

Fire Management Plan

FIRE MANAGEMENT PLAN

LOT 973 NANARUP ROAD, LOWER KING

1. INTRODUCTION

This Fire management Plan sets out the key requirements for bush fire management for lot 973 Nanarup Road, Lower King. Following final approval of the rezoning, it will be possible to prepare a detailed plan of subdivision. As a condition of approval, a detailed Fire Management Plan will need to be prepared.

2. FIRE HAZARD ASSESSMENT

The majority of Lot 973 is cleared pasture and has a 'low' bush fire hazard assessment. Two areas of remnant vegetation on the property have a 'moderate' bushfire assessment. Properties to the west, south and east have been developed for rural living purposes and are required to be maintained in a low fuel state. There are some pockets of remnant vegetation to the east which have a moderate fire hazard assessment. Rural land to the north has a mix of 'low' and 'moderate' hazard rating. Refer Bushfire Hazard assessment plan.

3. FIRE MANAGEMENT PLAN

3.1 Access

The main access to the property is currently from Nanarup Road with another access available from Mead Road. It is proposed to provide for a connection to Sheringa Park to the west via a ROW which will enable the proposed subdivisional road to connect through to Viscount Heights. This will benefit both the current proposal and Sheringa Park by providing another means of access/egress in addition to Mead Road. Connection through to Milne Close to the west can also be required at such time as Lot 1 is subdivided.

3.2 Gates

Gates will be required where Fire Service Access ways cross properties.





BUSH FIRE HAZARD ASSESSMENT PLAN

Lot 973 Nanarup Road
Lower King, City of Albany

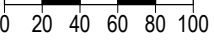


14-07-FHA(e)

LEGEND

-  Subject Land
-  Low Bush Fire Hazard
-  Medium Bush Fire Hazard
-  N

ORIG A3
SCALE 1:4000



NOTE

L/M denotes areas that are subject to bush fire management plans which require the properties to be maintained in a Low Fuel State.

3.3 Water

Reticulated water will be provided to each lot and fire hydrants will be provided every 200 metres along proposed subdivisional roads.

3.4 Building Protection Zones

All dwellings are to have a 20 metre wide Building Protection Zone (BPZ) maintained in accordance with the performance criteria listed in A4.3 of Planning for Bush Fire Protection Guidelines.

3.5 Building Separation Zones

Buildings upslope from remnant vegetation to have a 10 metre wide Hazard Separation Zone (HSZ) in addition to the 20 metre Building Protection Zone (BPZ).

Buildings down slope from the remnant vegetation to have a minimum HSZ/BPZ setback of 20 metres.

The HSZ to be maintained in accordance with the performance criteria listed in A4.4 of the Planning for Bush Fire Protection Guidelines.

3.6 Building Construction

Bushfire attack levels (BALs) are designated for each lot in the Indicative Fire Management Plan. The majority of the lots are located on relatively flat to gently sloping land which has been cleared for pasture and has a low Bushfire Hazard rating. A BAL of 12.5 is required for these lots. All existing cleared, pastured and parkland cleared areas are to be maintained in a low fuel condition.

For lots down slope of the two pockets of remnant vegetation on the property, a BAL of between 19 and 12.5 is recommended depending on the setback distance from the vegetation. Where a building is up slope from the vegetation, a 30 metre setback will require a BAL 29, e.g. Lot 8.

3.7 Purchaser/Landowner Notification

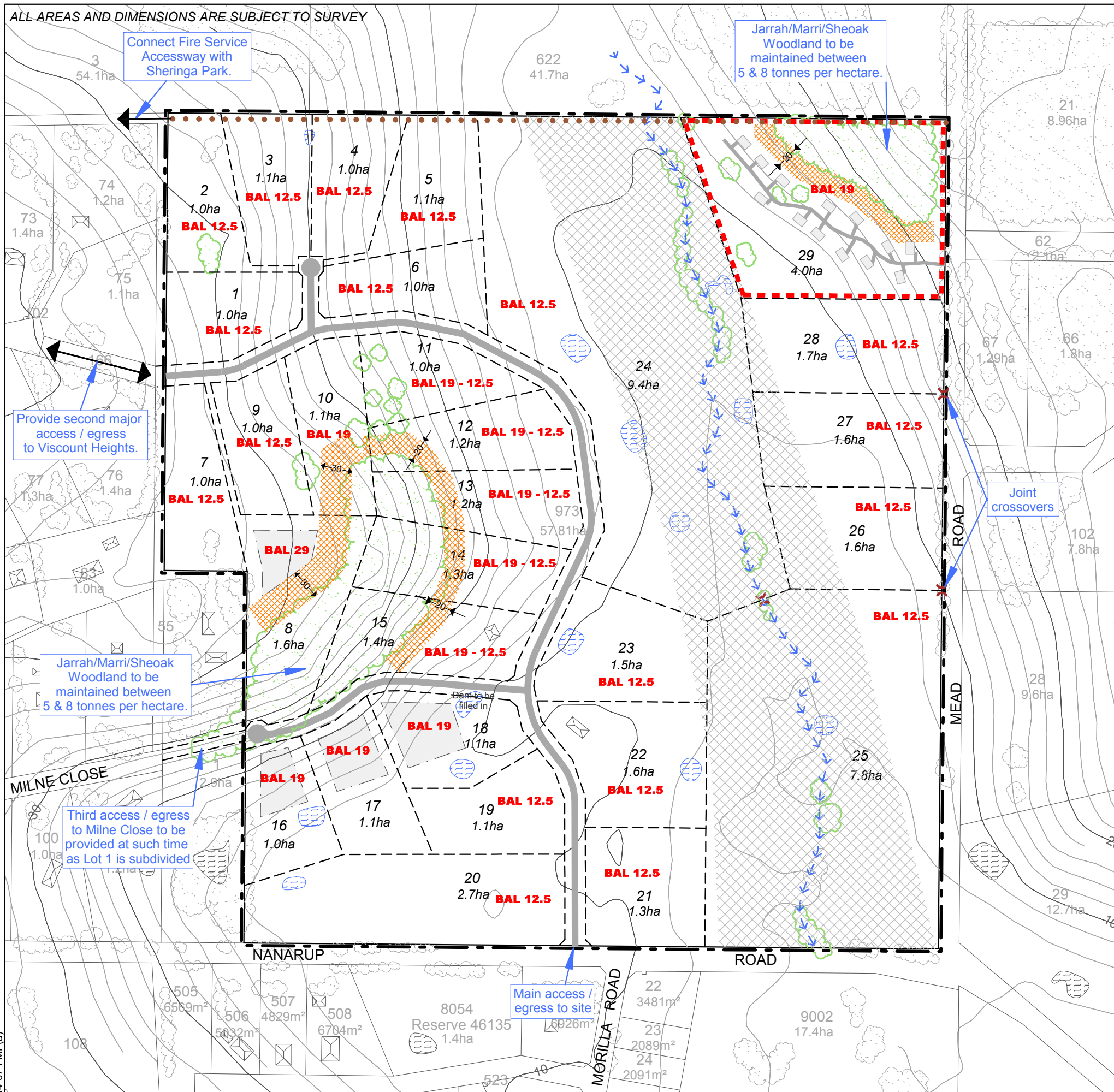
Section 70a Title Notifications to be applied which outline the landowner responsibilities to:

- maintain BPZs, HSZs and Hazard Reduction Areas in a low fuel state.
- construct dwellings to AS 3859-2009 requirements.
- maintain Fire Service Accessways where it crosses individual lots and provide appropriate gates where fenced.

Arrangements are to be made to the satisfaction of council to ensure prospective purchasers, in transfer of lots are aware of the Home Owners Bushfire Survival Manual, the scheme provisions and the Fire Management Plan.

INDICATIVE FIRE MANAGEMENT PLAN

Lot 973 Nanarup Road Lower King, City of Albany



LEGEND

	Subject Land		Existing Vegetation
	Existing Lot Boundaries		Existing Buildings
	Proposed Lot Boundaries		Existing Crossing
	Development Exclusion Area		Existing Dams
	Low Fuel Area		Creek Line
	Proposed Building Envelope		
	Additional Uses Site		
	Tourist Accommodation		
	BAL 19 Building Attack Level		
	Fire Service Accessway		

ORIG A3
SCALE 1:4000

0 20 40 60 80 100

NOTES

- Reticulated water supply to be provided to all lots and fire hydrants to be provided every 200 meters along subdivisional roads.
- Ensure each dwelling has a Building Protection Zone, Hazard Separation Zone, Hazard Reduction and are constructed to AS 3959 - 2009.
- Provide for alternative access/egress to the subdivision by connecting through to Viscount Heights and Lot 1 to the west.
- Construct a Fire Service Accessway along the northern boundary of Lot 973, connecting Sheringa Park & the subject land through to Mead Road.
- Where the fire service accessway crosses boundary fences, provide appropriate gates.

Appendix C

Schedule 14 – Rural Residential Zone cl 5.5.13

Schedule 14 – Rural Residential Zone [cl.5.5.13]		
No.	Specified Rural Residential Zone	Special Provisions Applying to Specified Rural Residential Zone
		<p>6. No Single House shall be permitted to be constructed within the 200 metre sand extraction area buffer as shown on the Subdivision Guide Plan until the sand extraction activities have ceased.</p> <p>7. At the time of subdivision the developer may be required to relocate/rationalise the High Voltage Power Lines to the road reserves.</p>
RR11	Sheringa Park, Lower King Rural Residential zone	<ol style="list-style-type: none"> 1. Subdivision of RR11 shall generally be in accordance with the Subdivision Guide Plan <i>RR11</i> endorsed by the CEO, with any minor variations approved by the Western Australian Planning Commission. 2. The minimum lot size shall be one hectare. 3. The following land uses are 'P' permitted uses: <ul style="list-style-type: none"> • Single House 4. The following land uses are 'D' discretionary uses: <ul style="list-style-type: none"> • Ancillary Accommodation; • Bed and Breakfast/Farmstay; • Home Occupation; • Industry – Cottage; • Recreation – Public; • Rural Pursuit (which shall be limited to existing cleared and pastured land only); and • Restaurant. 5. All development (including dwelling and outbuildings) and any low fuel zones shall be located outside of any development exclusion area and/or revegetation area as shown on the Subdivision Guide Plan and shall achieve the following minimum setbacks: <ol style="list-style-type: none"> (a) 40 metres from Nanarup Road; and (b) 15 metres from all other lot boundaries.
RR12	Neilson/Pineaster Roads, Willyung Rural Residential zone	<ol style="list-style-type: none"> 1. Subdivision of RR12 shall generally be in accordance with the Subdivision Guide Plan <i>RR12</i> endorsed by the CEO, with any minor variations approved by the Western Australian Planning Commission. 2. The minimum lot size shall be one hectare unless a larger size is shown on the Subdivision Guide Plan. 3. The following land uses are 'P' permitted uses: <ul style="list-style-type: none"> • Single House 4. The following land uses are 'D' discretionary uses: <ul style="list-style-type: none"> • Ancillary Accommodation; • Home Occupation; • Industry – Cottage;

PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 7

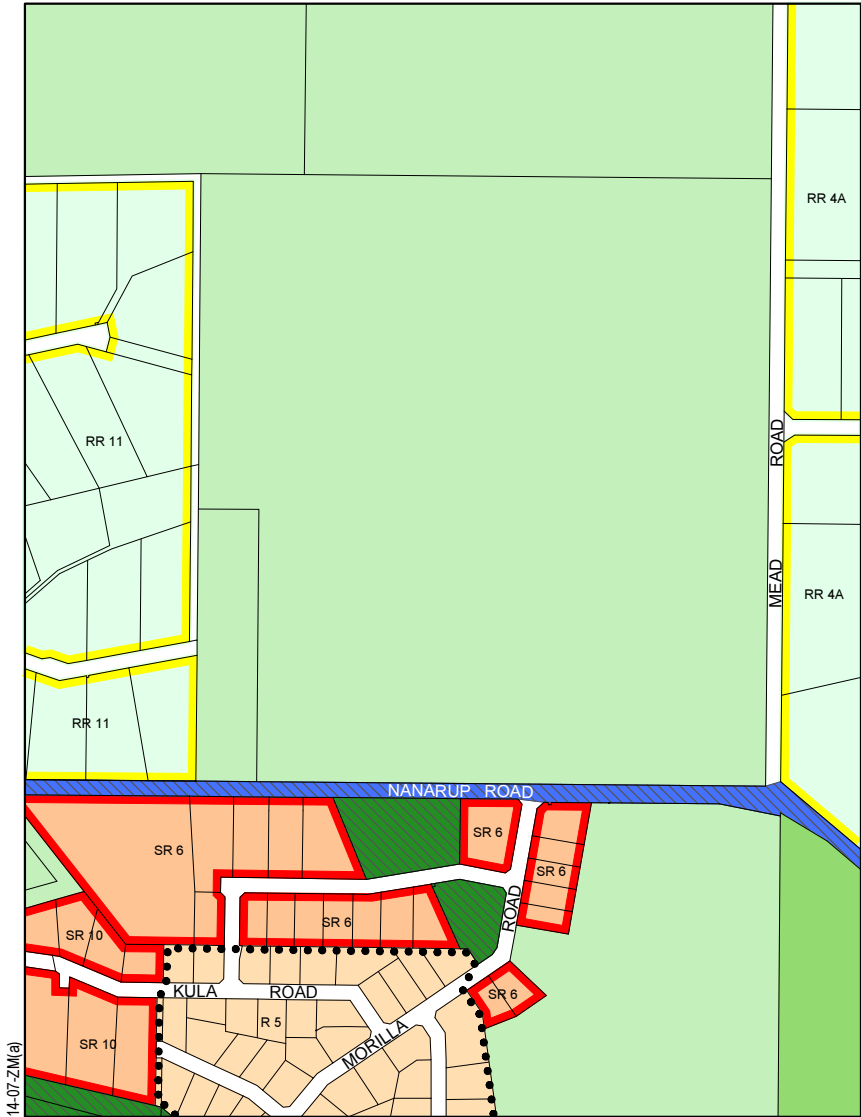
The City of Albany under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

- i) To rezone Lots 1 and 973 Nanarup Road, Lower King from the General Agriculture zone to the Rural Residential zone and incorporating them within area No. RR 11 as set out in Schedule 14 – Rural Residential zone of the Scheme text;
- ii) Designate portion of Lot 973 as an Additional Uses Site and incorporate it within Schedule 2 – Additional Uses of the Scheme Text in the following manner.

Schedule 2 ADDITIONAL USES			
No.	Description of Land	Additional Use	Conditions
AU31	Part Lot 973 Mead Road, Lower King	Holiday Accommodation/Holiday Chalets.	<ol style="list-style-type: none"> 1. A maximum of 12 holiday chalets and a manager's accommodation are permitted on the site. 2. Development to be generally in accordance with a Development Plan approved by the CEO. 3. All stormwater drainage shall be accommodated on-site and no direct discharge shall be permitted to Johnston Creek. 4. All buildings shall be set back a minimum of 30 metres from Mead Road. 5. The maximum height of all buildings shall not exceed 7.5 metres to minimise the visual impacts of such buildings from Mead Road. 6. The use of pale white, off-white or reflective materials and finishes such as zincalume will not be permitted. 7. Implementation of appropriate fire control measures as determined by the Local Government. 8. Minor variations may be permitted by Local Government after following the procedures in Clause 9.4 of the Scheme.

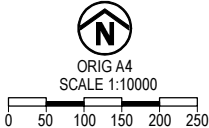
- iii) And amend the Scheme maps accordingly.

Existing Zoning

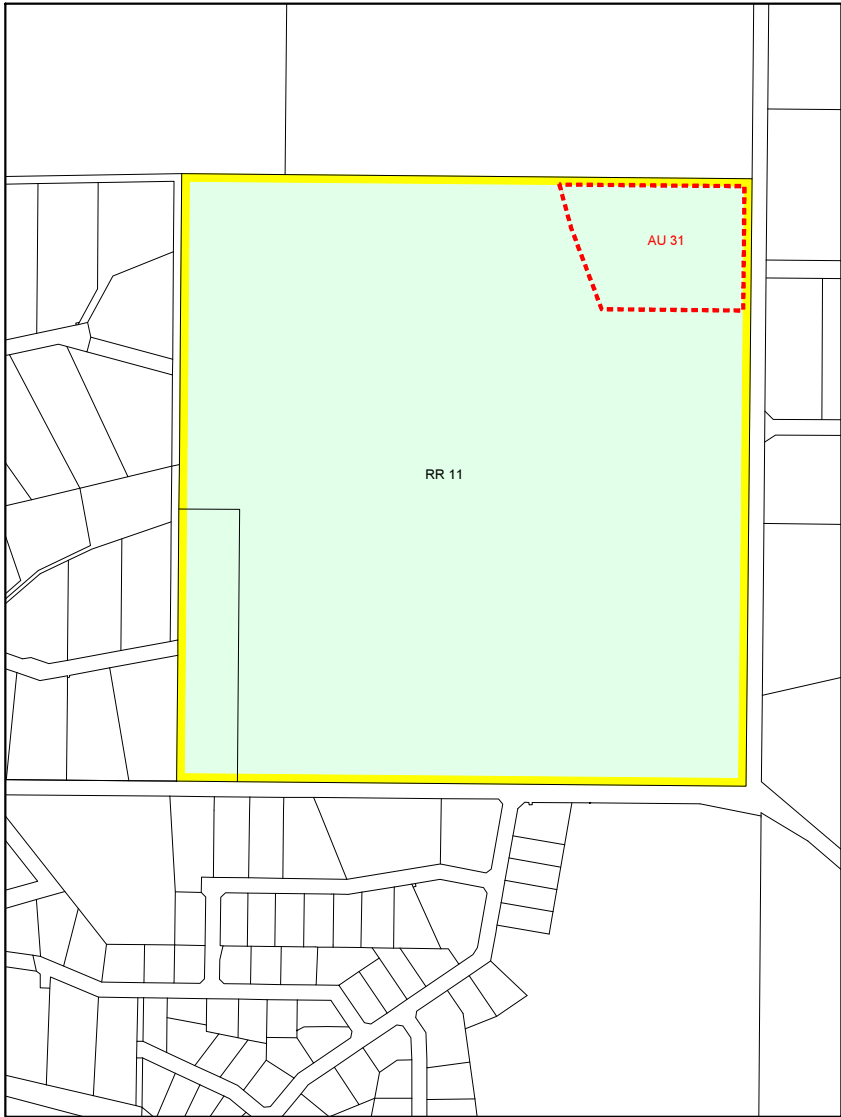


LEGEND

- R Code Boundary (Dotted line)
- LOCAL SCHEME RESERVES**
 - Parks & Recreation (Green)
 - Priority Road (Blue hatched)
- ZONES**
 - Clubs & Institutions (Light Green)
 - Residential (Light Orange)
 - Special Residential (Red hatched)
 - Rural Residential (Yellow hatched)
 - General Agriculture (Light Green)
 - Additional Uses (Red dashed)



Proposed Zoning



ADOPTION

Adopted by resolution of the Council of the City of Albany at the Meeting of the Council held on the _____ day of _____ 20_____.

Mayor

Chief Executive Officer

FINAL APPROVAL

Adopted for final approval by resolution of the City of Albany at the Meeting of the Council held on the _____ day of _____ 20_____ and the Common Seal of the City of Albany was hereunto affixed by the authority of a resolution of the Council in the presence of:

Mayor

Chief Executive Officer

Recommended/Submitted for Final Approval

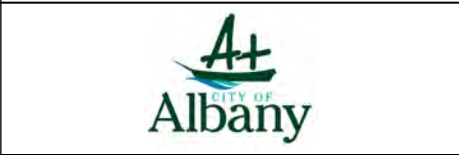
**Delegated Under S.16
of the PD Act 2005**

Date

Final Approval Granted

Minister for Planning

Date



This map has been produced by the City of Albany using data from a range of agencies. The City bears no responsibility for the accuracy of this information and accepts no responsibility for its use by other parties

Tuesday, 12 August 2014

1:15000



EMU POINT

OUTLINE DEVELOPMENT PLAN





Revision Information

REV	DATE	AUTHOR	Issued to:
A	09.04.2010	HG	
B			
C			
D			
E			
F			
G			
H			
I			

Harley Global (HG), City of Albany (CoA), OPUS (O), GHD (GHD),
 H+H Architects (HH), Wood & Grieve (WG), Lawrence Cuthbert (LC)
 Sally Malone Design (SMD)

Acknowledgements

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1.0 INTRODUCTION

This Outline Development Plan (ODP) has been prepared by Harley Global Pty Ltd (Harley Global) on behalf of LandCorp, the owner of Lots 3000 and 1523 Emu Point Drive, Collingwood Park (referred herein as the subject site).

This ODP has been prepared consultatively and in cooperation with the following project team consultants:

- H+H Architects (Design Guidelines and built form);
- Malone Designs (Urban Design and Landscape Master Plan);
- Lawrence Cuthbert and Associates (Sustainability);
- Wood & Grieve Engineers (Civil Engineering, Stormwater Management and Traffic)
- GHD (Environmental, Landscape and Visual Impact Assessment)
- OPUS International (Fire Management); and
- Ficifolia Consulting (Dieback consultant).

The ODP builds on work undertaken on behalf of LandCorp including environmental studies and design of a Concept Plan for the subject site.

The ODP has been prepared with the intention of supporting the sustainable urban development of a portion of the subject site. The subject site is zoned 'Future Urban' and 'Residential' within the City of Albany District Town Planning Scheme No. 1A (TPS1A) and identified in the applicable State and local planning strategies for urban development. It is intended to develop approximately 133 residential lots, released in stages providing for a variety of housing products. The benefits of the development include:

- Additional high quality residential land for sale within the City of Albany;
- Demonstration of sustainable development concepts in the Great Southern Region;
- Demonstration of a 'best practice' and show case sustainable residential development within the City of Albany; and
- Generation of revenue that will assist funding of the Albany Waterfront Project.

The ODP includes and is supported by the provision of Design Guidelines, a Landscape Master Plan, Fire Management Plan, Visual Impact Assessment, Traffic Study, Local Water Management Strategy and a variety of environmental assessments including flora, fauna, Dieback and coastal processes assessments. Features of the ODP include:

- A Village Centre to provide a focus and meeting place for the surrounding residential area and passing traffic;
- A range of residential lot types to accommodate apartment, townhouses, strata cluster dwellings and detached housing;
- Retention, enhancement and protection of approximately 60% of the site's vegetation;
- A focus on sustainable development and a reduction in the usual ecological footprint of the development;
- Vegetated corridors connecting the site to habitat areas to the north, south, east and west of the site; and
- Respect for the natural topography of the site.

The ODP is guided by a project-specific sustainability framework, with a view to achieving a sustainable development for the Albany community. Within the context of this framework, the ODP has been developed with input from public consultation and numerous technical investigations.

1.1 Outline Development Plan Area

The Emu Point Outline Development Plan No. 007 (ODP 007) is proposed to provide for the sustainable development of the land bounded by Emu Point Drive to the north, Middleton Beach and coastal reserve (Reserve No. 14789) to the south, Griffiths Street to the south west and 'Parks and Recreation' Reserve to the south and north east. A **Location Plan** is at **Appendix 2** and a **Site Plan** describes the subject site at **Appendix 3**.

1.2 Outline Development Plan Context

ODP 007 comprises a Map (**Plan 1**) to illustrate the planned development of the area and Text, setting out the statutory requirements for subdivision and development of the subject site. All subdivision and development shall be generally carried out in accordance with the ODP 007 Map and Text, which is further detailed in **Section 4.0** of the ODP and depicted in **Plan 1** (refer to **Appendix 1**).

1.3 Interpretation

The words and expressions used in ODP 007 shall have the respective meanings given to them in the City of Albany Town Planning Scheme No. 1A (TPS 1A), with respect to '*Future Urban*' provisions.

1.4 Operation Date

ODP 007 shall come into operation as an Agreed Outline Development Plan on the latter of the dates specified in Clause 4.36 of TPS 1A.

1.5 Relationship with the Scheme

In accordance with Clause 4.36 of TPS 1A:

- (a) The provisions, standards and requirements specified in ODP 007 shall have the same force and effect as if they were a provision, standard or requirement of TPS 1A; and
- (b) In the event of there being any inconsistencies or conflict between the provisions, standards or requirements of TPS 1A and the provisions of ODP 007, the provisions, standards or requirements of TPS 1A shall prevail.

1.6 Objectives

The objectives of ODP 007 are to:

- Guide future subdivision and development of the subject site;
- Provide for a range of residential densities and dwelling types;
- Encourage environmentally sustainable development that protects the adjacent coastal environs; and
- Provide a design that is socially acceptable to the Albany community.

2.0 BACKGROUND

2.1 Background to Development of the Site

2.1.1 Early Plans

The existing Griffiths / Hope Street lots were created in circa 1962 and allowed for extension into the subject site. Planning for development of the subject site appears to have originated in the late 1960s, indicative road layouts are shown on plans dating from the 1970s.

The current isolated development on Griffiths and Hope Streets appears to have been part of an overall plan for residential subdivision of the locality. Draft Scheme Maps prepared in 1977 as part of the preparation of Town of Albany Town Planning Scheme No. 1A show an indicative road layout for the subject site as depicted in **Figure 2.1**.



Figure 2.1: Extract of draft TPS 1A Scheme Map 1977 showing an indicative residential road design over the subject site.

The layout was based on contemporary residential designs of the time and adopted curvilinear design principles and cul-de-sacs. Access to the subject site was from Emu Point Drive and Griffiths Street. There would have been no linkage into Lot 1523, which would have been served by a single long cul-de-sac directly linked to Emu Point Drive.

Importantly, the layout shows development would have encompassed the entire subject site with Public Open Space (POS) being located along the Emu Point Drive frontage. This layout was replicated in the Scheme Maps adopted by the Town of Albany in 1979. It is understood that the indicative design was not shown on the Scheme Maps gazetted in 1983 although this has not been confirmed as the gazetted plans have not been located. The intention to develop the site for residential purposes was subsequently confirmed in the various residential strategies for Albany including the *State Planning Commission’s Residential Expansion Strategy* (1994) and *City of Albany Housing Position Paper* (2005).

2.1.2 Previous Clearing of the Site

Aerial photography of the subject site from 1954, 1961, 1973, 1977, 1981 and 1987, 2001, 2004, 2006 & 2007 have been collected and is provided in **Appendix 7**. This imagery shows that Lot 3000, part of Lot 1523 and the reserve area along Emu Point Drive was completely cleared or the subject of a bush fire some time before 1973 as depicted in **Figure 2.2**.



Figure 2.2: 1973 Aerial Photography of the site showing extent of vegetation clearing.

It is important to note, that following the clearing or burning that occurred in the early 1970’s, that whilst large areas of the subject site has been revegetated to produce the standard of vegetation we find today, the north western corner of the subject site has regenerated more slowly and with less coverage, as depicted in **Figure 2.3**. The development footprint has been focussed on this area.



Figure 2.3: 1987 Aerial Photography of the site showing extent of vegetation regeneration

2.1.3 Evolution of Zoning

TPS1A was gazetted in 1983. At this time, Lot 3000 was zoned *Future Urban* and Lot 1523 zoned *Residential*. The strip along Emu Point Drive was reserved for *Parks and Recreation*.

Since the gazettal of TPS1A, there has been no change to the zonings and reservations over the subject site. However, residential density coding was applied to Lot 1523 upon adoption of the Residential Planning Codes in 1985.

Prior to gazettal of TPS1A, the subject site was proposed for a number of zonings in the draft Scheme Maps as follows:

- 1977 – Lot 3000 to be *Future Urban* and Lot 1523 to be *Residential*; and
- 1979 – Lot 3000 to be *Residential* and Lot 1523 to be *Tourist Residential*.

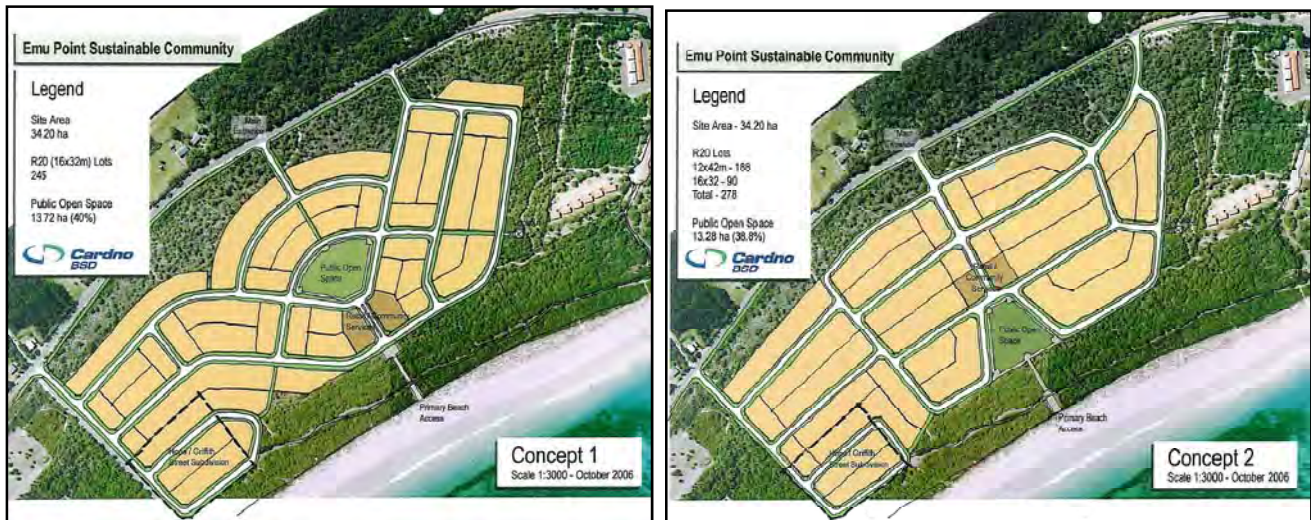
It appears that at some point between 1979 and 1983, the 1977 proposed zonings were re-adopted and are reflected in the zoning of the subject site to this day.

2.1.4 Evolution of current development concept

Until 2005, the 1970s proposal to develop the entire subject site was not followed through and the site was allowed to grow back to a vegetated state.

Planning for the site by LandCorp commenced in 2005 and this involved a considerable amount of planning and consideration of a large number of development options in order to reach the point where this ODP can be prepared to guide the subdivision and development of the subject site.

Prior to community consultation in late 2006, two concepts were developed, with both concepts providing approximately 60% of the site to be developed and bushland areas being provided along the Emu Point Drive frontage and along the eastern boundary (refer to **Figures 2.4 and 2.5**).



Figures 2.4 and 2.5: October 2006 Concept plans for community discussion.

The resultant community input identified that there was considerable demand for a greater proportion of the subject site to be retained as bushland and for the development to be more sustainable. The community views also reflected LandCorp’s sustainability objective of ensuring future development achieves ‘triple bottom line’ principles. Therefore, there was a move away from a conventional one house per lot approach to provide alternative tenure and dwelling mixes.

The initial concepts maintained the eastern wildlife corridor, include dune lines in open space areas and provisions of vegetation easements throughout the development area (refer to **Figures 2.6 and 2.7**).



Figures 2.6 and 2.7: November 2006 designs showing protection of dune lines by reservation (left) and inclusion in long lots with vegetation easements (right).

The abovementioned designs assumed the majority of the subject site would be developed with a wildlife corridor along the eastern edge. Alternative access points onto the surrounding road network were considered, as well as the notion of directly linking the Hope Street residential area into the overall development.

After completion of the initial community consultation in late 2006, it became clear that community expectations for more of the site to be retained as bushland. The concept planning was refined to reflect these views. A number of alternative designs were considered by the project team during January and February 2007. These incorporated greater open space and clustering of the development into two nodes with a wildlife corridor between the two parts (refer to **Figure 2.8**). This design also provided for strata ‘eco-lots’ that would allow for dwelling units to be located within the natural topography and vegetation.



Figure 2.8: February 2007 Concept Plan after consideration of initial community input.

Subsequent to concept planning, a detailed environmental assessment of the subject site was undertaken. This assessment identified the environmental constraints of the site in more detail (refer to **Figure 2.9**) and assisted with identifying the primary development area (refer to **Figure 2.10**).



Figures 2.9 and 2.10: 2007 Site constraints assessment (left) and identification of primary development area (right). At this point, it was determined that development should be limited to an area of approximately 40% of the site or 13.2 ha. This led to a revisit of the overall concept design during 2008 (refer to **Figure 2.11**).



Figure 2.11: 2008 Concept that was presented for community input in May 2009.

The 2008 concept and the results of the May 2009 community consultation form the basis for the ODP. Over the course of the period 2005-2009, the proposed development has:

- Reduced in area to enable a proportion of the site to be retained as open space to increase from approximately 40% to 60%;
- Become less reliant on single dwelling lots by promoting alternatives such as townhouses, apartments and cluster homes;
- Provided for lots that use the existing topography to reduce the need for major earthworks;
- Provided for higher density on the western end of the site where the vegetation is less dense and of relatively poorer quality; and
- Included vegetated links throughout the site.

2.2 Environmental Assessment

In May 2007, the development proposal for Emu Point was referred to the Environmental Protection Authority (EPA) for assessment under Section 38 of the *Environmental Protection Act 1986* (EP Act). The EPA set the level of assessment as a Public Environmental Review (PER), with an eight week public review period. There were no appeals to this level of assessment set for the development proposal.

An Environmental Scoping Document for the development proposal was prepared by environmental consultants, Straten, and submitted by LandCorp in November 2007, which was subsequently approved by the EPA as an acceptable basis for the preparation of the PER document.

A PER has subsequently been prepared by GHD and lodged with the EPA for formal assessment on the 20 April 2010. The PER is a public document, subject to an four week review period, during which time the public will have the opportunity to prepare submissions to the EPA. Submissions and specialist advice from agencies will be considered by the EPA in their assessment of this development proposal. In addition to these technical and public submissions, the EPA will also consider their investigations and associated advice or specifically commissioned research.

The EPA's advice and recommendations determined as a result of the abovementioned considerations will then be presented to the Minister for Environment for a determination of the environmental acceptability as well as the environmental conditions that should apply to the development proposal.

The key recommendations and actions from the PER are incorporated and detailed throughout this document.

2.3 Community Consultation

In 2005, State Cabinet announced that LandCorp have the task of working with the local community to progress subdivision and development of the subject site.

Before any work commenced on the development proposal, community input into a vision for the development proposal was gathered through stakeholder information sessions, market research and public open day, held in September and October 2006. Forty stakeholders attended the information session and more than 100 people visited the public open day. Key recommendations raised by respondents for the development proposal included the following:

- *Careful management of the development to minimise the impact on the existing natural environment;*
- *Protecting the existing flora and fauna of the area;*
- *Working with the natural topography and landform of the site;*
- *Reducing the potential danger of household pets to the native wildlife;*
- *Retaining bush on both sides of the dual use path and providing carefully controlled pedestrian access to the beach;*
- *Limiting vehicular connections between the site and adjoining residential areas but including paths for pedestrians and cyclists;*
- *Streets which are designed to minimise through traffic;*
- *Providing a range of lot sizes to cater for the different needs of people;*
- *Lifting the bar on environmentally sensitive design;*
- *Developing strong guidelines to ensure good design outcomes;*
- *Incentives incorporated to encourage residents to adopt environmental initiatives; and*
- *Blending the development with the natural environment and using non-reflective roofing.*

This input assisted in defining the project vision and objectives for the development proposal and formulation of the draft Concept Plan.

As a result of the abovementioned consultation sessions, LandCorp engaged suitably qualified consultants to undertake flora, vegetation and fauna surveys, geotechnical, groundwater and coastal setback studies to address those issues raised during consultation sessions.

In October 2007, stakeholder sessions and Community Information Sessions were held with Albany residents and regulatory authorities to present the outcomes from the detailed studies and investigations, and gather feedback on the proposed development area and the type of development to occur with this area. Feedback forms were made available to assist in the formulation of the draft Concept Plan.

In January 2008, LandCorp distributed a summary document of the key responses to the abovementioned consultation session, the responses included the following:

- *77% of respondents agreed that rainwater tanks on individual dwellings should be mandatory;*
- *Strong support for grey water recycling for individual dwellings, with 62% support if mandatory and 68% support if option or by incentive;*
- *Majority of respondents (80%) agreed that swales should be incorporated into the road reserves;*
- *67% of respondents agreed that the exclusion of cats from the development would be acceptable, however this response halved when both dogs and cats were excluded; and*
- *42% of respondents identified that no dividing fences between properties would be acceptable, however, 74% would support low dividing fences.*

Other concerns and issues raised by respondents included the following:

- Privacy issues associated with the development proposal to existing Hope Street residents;
- Safety and impact of the development proposal on the possums in the area;
- Strong opposition to the development proposal, identifying the subject site should remain untouched for future generations to appreciate, but would support walking trails and barbecue area; and
- Entrance off Griffiths Street only to minimise traffic through the already developed residential area on Hope Street, with a possible buffer being retained between the development proposal and the dwellings on the adjoining properties on Hope Street.

Resulting from the abovementioned consultation sessions, a draft Concept Plan was formulated for the development proposal that reflects sound planning principles and sought to address the outcomes from these consultation sessions, including the community aspirations and regulatory authority processes and feedback (wherever possible).

On the 23rd May 2009, LandCorp conducted stakeholder sessions and a Community Information Session with Albany residents and regulatory authorities to present the draft Concept Plan. As a result of the consultation sessions, 34 submissions were received in relation to the draft Concept Plan.

Some of the underlying concerns raised by the respondents (particularly the local residents) have been summarised into subsets below:

Issues around Hope Street residential area:

- Potential increase in traffic numbers, parking, noise and anti-social behaviour;
- Potential impact on safety and access for residents e.g. children, horse riders etc;
- Opposition to residential lots to the east adjacent to Hope Street residents;
- Opposition to laneways, dual use pathway and housing near Hope Street residents;
- Lack of consideration of Hope Street and adjoining landowners throughout process;
- Potential for increased crime and noise resultant from laneway proposal;
- No through roads supported for the proposal;
- 50m bush buffer to all existing and any new residential blocks;
- Potential investigation into the safety of Griffiths Street;
- Retain existing parking on Griffiths Street;
- Relocate 17 townhouses to Emu Point end of the development or close to Emu Point Drive;
- Opposition to on-street parking and additional parking in this area;
- Management of dog and horse waste required; and
- Meetings to be held with residents on the weekends e.g. Saturday.

General Comment about design:

- Increased housing density is not appropriate in this environment, the density should be reduced;
- Limit building heights to four storeys and two storeys in red precinct;
- Limit Homeswest housing within this development area;
- Re-consider the location of the commercial area, given the current economic climate and viability for a deli/cafe in this area;
- Consider large bush blocks;
- Appropriate fire management measures considered as part of the proposal;
- Provision of one walking trail for dual use; and
- Investigation of closure of the beach for dog and horse users.

Comment regarding development of the subject site:

- Preference for the area to remain as is, with no development;
- Potential impact of loss of beach resulting from erosion;
- Rehabilitation of vegetation will not make up for the total loss and destruction of flora and vegetation within the site;
- Lack of EPA documentation for public review; and
- Opposition to the development due to tourism potential of the site for bush values.

In July 2009, a local consulting team was appointed by LandCorp to prepare this ODP and supporting documentation. The first task of this team was to review the draft Concept Plan prepared in May 2009 in light of their local experience, professional recommendations and the submissions received.

The draft Concept Plan was subsequently reviewed and a series of changes made to produce the forerunner to the current ODP at **Appendix 1**. The changes are detailed in **Section 4.1.2** of this document.

In December 2009 the draft ODP was presented to the City of Albany Planning Committee and staff for information purposes only.

In January and February 2010 local residents of Hope and Griffiths Street were given the opportunity to have a one on one interview with the project's town planner as a final, informal consultation step. Twelve of the twenty landowners took advantage of this opportunity.

The revised Concept Plan was presented to the landowners and further comment sought. There were commonly held views about the development. Of those interviewed all would prefer that no development take place, mostly on privacy and environmental grounds. However, if development was to occur then the following issues were raised (as summarised below):

- A green belt, similar to the green spines proposed throughout the rest of the design, should be retained around the existing residential area;
- Griffiths Street should be retained as a cul-de-sac to prevent the creation of a "hoon lap";
- Horse access to the beach has increased substantially over the last year, particularly the use of floats and trucks. Horses using Griffiths Street early in the morning raises issues of noise, manure and safety for horse riders, local residents, beach users and cyclists.
- A green buffer is suggested along Griffiths Street to the future development;
- Powerlines should be placed underground and Hope Street resealed to bring existing development into line with proposed development;
- No Homes West development should be included;
- Beach access should be improved to prevent sand blowing into nearby houses; and
- Medium density housing was questioned in light of the existing residential area being low density in character and the additional impact of probable two-storey development on privacy and sense of space.

This is a summary of the major issues raised by the majority of the local residents interviewed; it is not a comprehensive list. Changes have been made to the version of the ODP presented to the local residents at this meeting. **Section 4.1.2** of the ODP describes the response to the above issues in detail.

This considerable consultation process lead to the refinement of the principles and intent of the ODP.

3.0 CONTEXTUAL ANALYSIS

3.1 Site Description

3.1.1 Location and Description

The subject site comprises Lots 3000 and 1523 Emu Point Drive, Collingwood Park, which is situated approximately 5 km north east of the Albany townsite (refer to **Appendix 2**). The subject site is 33.1 ha with Lots 3000 and 1523, being 25.9 ha and 7.2 ha in area, respectively (refer to **Appendix 3**).

The subject site is 1 km from Emu Point. Emu Point is located at the northern end of Middleton Bay at the entrance to Oyster Harbour. Emu Point has a range of amenities including cafes, restaurants, a marina, tennis courts, lawn bowls and a protected swimming beach.

3.1.2 Land Ownership

Lots 3000 and 1523 Emu Point Drive, Emu Point is owned by the Western Australian Land Authority (trading and “LandCorp”). The legal description of the subject site is detailed in *Table 1* below. **Appendix 8** provides the Certificate of Titles.

Table 1 – Land Ownership Details

Lot Description	Lot Area	Certificate of Title	Landowner Details
Lot 3000 Emu Point Drive	25.9367ha	Volume: 2652 Folio: 911 in DP51548	Western Australian Land Authority
Lot 1523 Emu Point Drive	7.2429ha	Volume: 2652 Folio: 910 in DP28399	Western Australian Land Authority

3.2 Land Use

3.2.1 Existing Land Use

The subject site is undeveloped and predominantly covered in remnant coastal vegetation, with the topography comprising relict foredunes. There is some clearing associated with numerous paths and firebreaks traversing the subject site. Predominant land use for the subject site has been for informal recreational purposes only. The **Site Plan** at **Appendix 3** provides an aerial photograph of the subject site and surrounding locality.

3.2.2 Surrounding Land Use

The subject site is surrounded by Griffiths Street and the ‘Hope Street’ residential development to the south west, Middleton Beach and coastal reserve (Reserve No. 14789) to the south, tourist development including Emu Point Motel and residential development to the north east and Emu Point Drive to the north. These land uses are depicted in **Appendix 4**.

Importantly, there is an existing residential area immediately adjacent to the subject site. The Hope Street residential area was developed in the 1960s and consists of single houses on generally 600-750 m² lots. This area is serviced by scheme water, overhead power and on-site effluent disposal systems. There are two Bed and Breakfast establishments located on Griffiths Street where it faces Middleton Beach.



Plate 1 Emu Point, 1 km from the subject site



Plate 2 – A number of informal paths intersect the subject site.



Plate 3 – Griffiths Street has a number of Bed and Breakfast establishments

A variety of fence types separate the ‘Hope Street’ residential area and the subject site and there is evidence of some weed invasion in bushland surrounding existing homes. There is little provision for fire management given it is an existing residential area with vegetation close to the common boundary line.



Plate 4 – Some evidence of weed invasion at the development interface.



Plate 5 – Garden refuse within the subject site

3.3 Planning Context

3.3.1 State and Regional Planning

3.3.1.1 State Planning Strategy and State Planning Framework

The State Planning Strategy (SPS) was released by the Western Australian Planning Commission (WAPC) in 1996 and provides an overall strategic planning framework for the State. The SPS is supported by the State Planning Framework (State Planning Policy No.1) which ensures all State and regional planning documents meet SPS principles.

There are five key principles that are advocated by the SPS:

Environment:

To protect and enhance the key natural and cultural assets of the State and deliver to all West Australians a high quality of life which is based on environmentally sustainable principles.

Community:

To respond to social changes and facilitate the creation of vibrant, safe and self reliant communities.

Economy:

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

Infrastructure:

To facilitate strategic development by making provision for efficient and equitable transport and public utilities.

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.

The planning and envisaged development of the subject site is based upon these principles. In particular, the development seeks to respond to its environment, provide a vibrant and attractive community, provide adequate infrastructure and services to the area, generates employment and economic prosperity for the Great Southern Region and the State of Western Australia.

3.3.1.2 State Sustainability Strategy

The State Sustainability Strategy (SSS) was adopted by the State Government in 2003. LandCorp has embraced the principles of the SSS and strives to ensure each development meets sustainability principles.

At the SSS's core is a sustainability framework, comprising eleven sustainability principles. The principles that this development is affected by and addresses are:

- *Biodiversity and ecological integrity* – the site contains extensive natural habitat for a number of indigenous species, in particular Western Ringtail Possum habitat. A total of 60% of the site will be protected with the design providing vital wildlife linkages through and around the development in order to address this principle.
- *Settlement efficiency and quality of life* – the development seeks to reduce its ecological footprint by sustainable urban design supported by design guidelines to ensure housing similarly reflects this principle. It will interact with its environment in a way that allows the environment to be enjoyed without detrimental impacts.
- *Community, regions, 'sense of place' and heritage* – the development seeks to reflect its coastal setting rather than attempt to redesign it on contemporary suburban principles. It seeks to respond to its environment rather than modify it.
- *Integration of the triple bottom line* – the development has been developed to reflect LandCorp's commitment to sustainability principles. The development has been assessed against the sustainability checklist further described in this document.

3.3.1.3 State Planning Policy No. 3 – Urban Growth and Settlement

State Planning Policy No. 3 (SPP3) is designed to facilitate the sustainable growth and development of urban and settlement areas throughout WA. The objectives of SPP3 are:

- *To promote a sustainable and well planned pattern of settlement across the State, with sufficient and suitable land to provide for a wide variety of housing, employment, recreation facilities and open space.*
- *To build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities.*
- *To manage the growth and development of urban areas in response to the social and economic needs of the community and in recognition of relevant climatic, environmental, heritage and community values and constraints.*
- *To promote the development of a sustainable and liveable neighbourhood form which reduces energy, water and travel demand whilst ensuring safe and convenient access to employment and services by all modes, provides choice and affordability of housing and creates an identifiable sense of place for each community.*
- *To coordinate new development with the efficient, economic and timely provision of infrastructure and services.*

The Lower Great Southern and Albany Local Planning Strategies discussed elsewhere in this report are designed to meet these objectives. The Emu Point development strives to create a sustainable development that responds to its environment, build on existing communities and infrastructure and provide a living environment that seeks to create an identifiable sense of place.

3.3.1.4 Lower Great Southern Strategy (2007)

This Strategy aims to set the broad strategic direction for planning in the Lower Great Southern Region for the next 20 to 30 years. Its purpose is to guide regional land use and infrastructure planning and development, especially on matters of regional significance. The Strategy is designed to provide the region - wide context and ensure consistency when local governments are setting priorities for their respective areas through local planning strategies and schemes.

Of particular relevance to the subject site is that it makes general recommendations regarding sustainable settlements and community development and makes reference to consolidating settlements and using infrastructure in a sustainable manner.

The Regional Land Use Plan incorporated into the Strategy shows the subject site as part of the Albany Regional Centre and Emu Point Drive as a Secondary Regional Road.

3.3.1.5 Liveable Neighbourhoods (2007)

Liveable Neighbourhoods (LN) is an operational policy of the WAPC that implements the objectives of the State Planning Strategy and to guide the sustainable development of urban areas. LN provides guidance on a number of elements including the movement network, lot layout, public parkland, urban water management and utility planning.

This development has been designed in accordance with the various elements of LN and is compliant with all relevant requirements. Of particular relevance to this ODP document is the requirement for a Local Structure Plan (i.e. development area of less than 300ha). It is noted that the ODP required by the Town Planning Scheme is defined as a Local Structure Plan by LN.

Table 1 of LN provides a checklist for the information and detail to be provided in Local Structure Plans. A completed checklist for this development proposal is included in **Appendix 9**.

3.3.1.6 Guidelines for the Preparation of Local Structure Plans for Urban Release Areas (1992)

These guidelines form part of the Development Control policy suite of the WAPC and seek to provide guidance on the content of the various levels of structure planning. However, this document is recognised as dated and the WAPC have flagged that it will be replaced in Section 2.10 of the “Planning Makes it Happen – a Blue Print for Planning Reform” - *Structure Plan Preparation Guidelines*. These new guidelines are unavailable at the time of the drafting of this document.

LN have been used as the most current guiding document for Structure Plans.

3.3.1.7 Residential Design Codes (April 2008)

The *Residential Design Codes* (referred within a ‘R-Codes’) were prepared and subsequently modified by the WAPC in April 2008, and these codes guide future subdivision and density of development within the State of Western Australia. The R-Codes relate predominantly to the development of housing on the resultant lots. This will occur in conjunction with the Design Guidelines prepared as part of this ODP. However, the residential density provisions of the codes have been applied to guide the future subdivision and ensure appropriate density of development.

The residential densities applied to the site are as follows:

- Single House and Cluster Lots – R20 (500m² average, 440m² minimum);
- Medium Density Solar Lots - R30 (300m² average, 270m² minimum);
- Village Centre – R40 (Grouped Dwellings - 180m² average, 160m² minimum); and (Multiple Dwellings – 166m² average).
- Apartments (within the Village Centre) – Density to be determined by a vertical building envelope established by the Design Guidelines.

In order to achieve these densities, development will need to appropriately address all relevant requirements of the R-Codes relating to:

- Streetscape
- Boundary Setbacks
- Open Space
- Access and parking
- Site works
- Building height
- Privacy
- Climate
- Incidental development.

In relation to the Village Centre, any mixed use development will be guided by the mixed use development requirements of the R-Codes.

It is noted that the Development Guidelines for the site and the City of Albany Residential Design Codes Policy may replace or elaborate on specific provisions of the R-Codes.

3.3.2 Local Planning

3.3.2.1 City of Albany Draft Local Planning Strategy

The Albany Local Planning Strategy (ALPS) sets out the long term planning direction for the City of Albany and has regard to all relevant State and regional planning policies.

ALPS was adopted by the City of Albany for final approval on the 21 August 2007. The draft was considered by the WAPC in mid 2008, after which the Commission requested certain changes to the document prior to finalisation.

ALPS identifies the strategic planning direction for the City of Albany over the next 20 years. It draws on the key elements from the City of Albany’s strategic planning document, 3D Vision, and notes that the City of Albany should become a Learning, Healthy and Thriving City.

The subject land is currently classified by ALPS as ‘Future Urban – Priority 2’ and ‘Existing Urban’ as depicted in **Figure 3.2**.

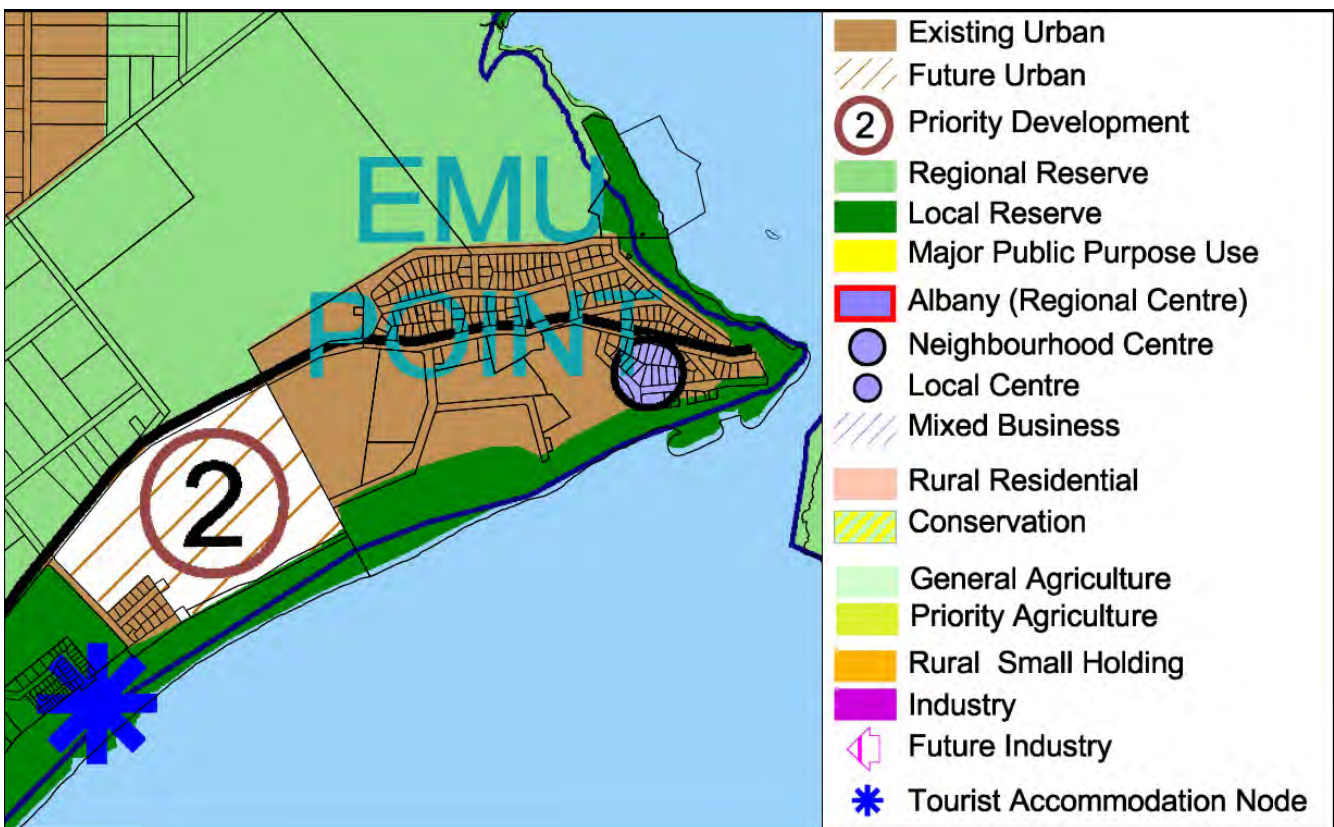


Figure 3.2: Extract of draft Albany Local Planning Strategy (May 2009 version).

The development proposal is consistent with the ALPS classifications.

The ‘Existing Urban’ classification indicates that the site is suitable for further residential development.

The ‘Future Urban’ classification with a ‘Priority 2’ ranking identifies the site for urban purposes and encourages the preparation of a Local Structure Plan as a priority action.

ALPS is divided into four strategies, settlement, environmental, economic and social, each with its own objectives and actions. The ODP is compatible with the listed objectives and actions of the four strategies.

The following objectives relate to Strategic Settlement Direction for the City of Albany:

- Minimise the development footprint on the landscape to assist in the protection of biodiversity and the environment;
- Promote energy conservation;
- Provide greater housing choice;
- Minimise journey length from home to work/school/services and encourage the use of public transport, cycling and walking; and
- Reduce government expenditure on servicing current and future populations.

The proposed ODP meets these objectives in the following manner:

- The development proposal concentrates the urban development within 40% of the site, retaining 60% in its natural state;
- The ODP is focussed on promoting sustainable outcomes, in particular the orientation of lots allows for solar orientation of dwellings in an equitable arrangement and the Design Guidelines require highly rated, solar passive dwellings;
- The development proposal creates a wide variety of housing options at a range of densities;
- The subject site and development proposal have ready access to the comprehensive dual use path network;
- The subject site is not well serviced by public transport however the development footprint will be concentrated with higher densities closest to the existing bus stop. This is discussed elsewhere in this document; and
- The subject site is easily serviced with water, sewer and power and brings the benefit of providing deep sewerage to the existing residential enclave that currently uses septic tanks in close proximity to the coast.

3.3.2.2 City of Albany Town Planning Scheme No. 1A

TPS1A was gazetted on 30 December 1983 and is the primary statutory planning document used to control development and guide land use within the former Town of Albany area. The Town and Shire were amalgamated in 1998 to form the City of Albany.

The subject site has a number of zonings; these are shown in **Figure 3.3** below and are described as follows:

- Lot 1523 Emu Point Drive is zoned 'Residential' by City of Albany Town Planning Scheme No.1A with a density coding of R12.5 and R20. However clause 4.20 allows for the development of grouped dwellings up to the R20 density coding where reticulated sewerage is available over the whole site.
- Lot 3000 Emu Point Drive has two zonings. The majority of the lot is zoned 'Future Urban' with a strip being retained along Emu Point Drive reserved for 'Parks and Recreation' under the Scheme.

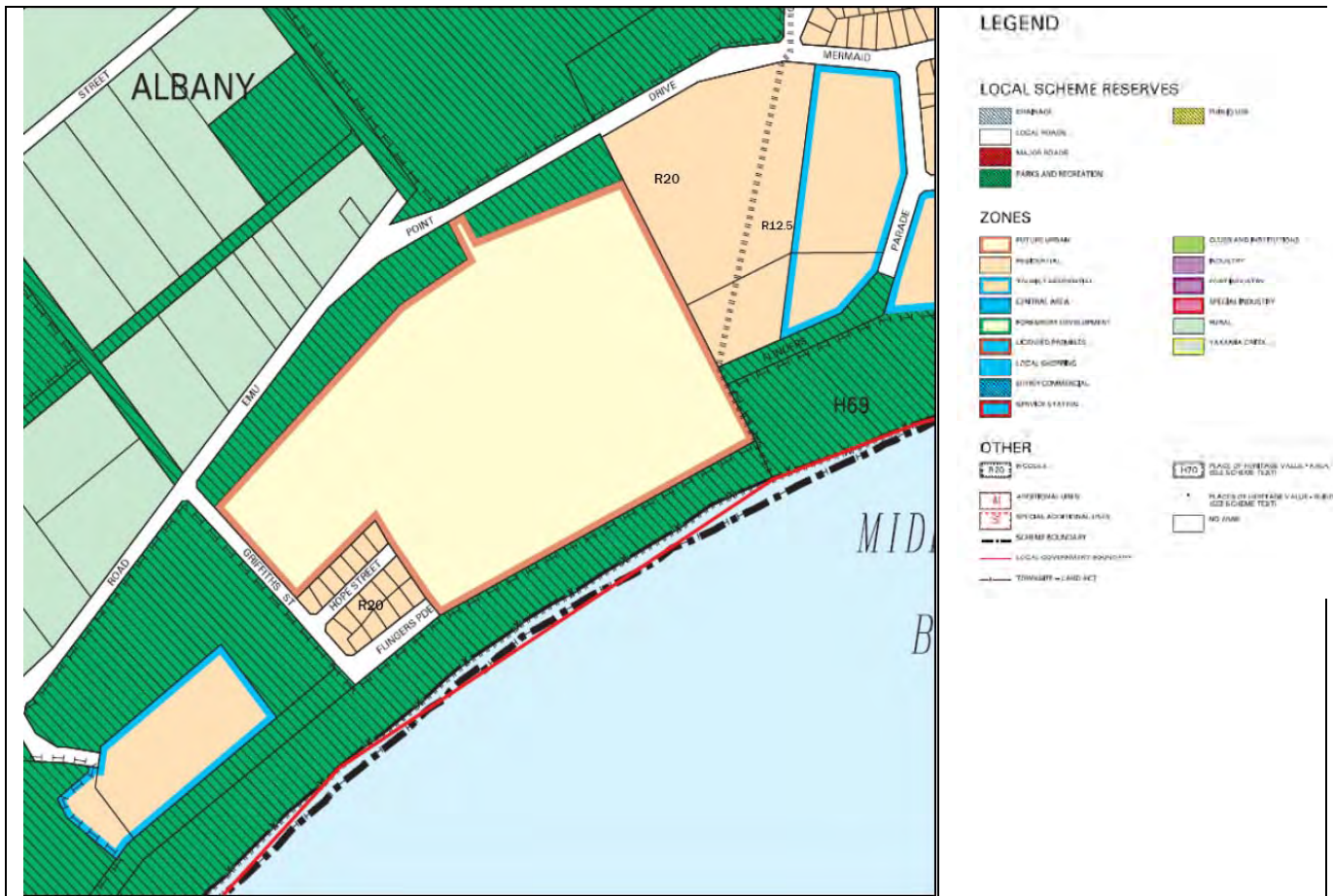


Figure 3.3 Existing zoning under City of Albany Town Planning Scheme 1A – courtesy WAPC

Despite the Residential zoning of Lot 1523, the ODP responds to the site’s opportunities and constraints by concentrating development on the least environmentally sensitive land located within Lot 3000.

Clause 4.36 of TPS 1A states:

“Land included in the Future Urban Zone is recognised by the Council as being suitable for urban purposes in the future. Council shall allow for development and promote subdivision proposals where the subdivision and/or development proposal put forward is in accordance, or will not conflict, with a Local Structure Plan approved by Council and endorsed by the Western Australian Planning Commission, and submitted in a form consistent with Western Australian Planning Commission guidelines.”

Therefore, before further development or subdivision of Lot 3000 is permitted, a Structure Plan must first be adopted by Council and endorsed by the WAPC. The form of the Local Structure Plan is in this case an ODP and has been provided in accordance with the LN requirements.

The ODP will apply to all development provisions applicable to the site.

3.3.2.3 Surrounding Zoning

The property is surrounded by a variety of zones and reserves see Figure 3.3 above for details.

To the west is land reserved for ‘Parks and Recreation’ and the ‘Tourist Residential’ zoning applied to the Barry Court development (adjoining Golf Course and Tourist/Residential Accommodation). To the south west is the existing Hope Street residential area zoned ‘Residential’ with a density coding of R20.

The Middleton Beach foreshore reserve is reserved for ‘Parks and Recreation’ under the Scheme and has retained existing native vegetation.

To the east is land zoned ‘*Tourist Residential*’ that is developed with the Emu Point Motel and the Emu Beach Chalets.

To the north is a mix of reserved land and ‘*Rural*’ zoned land. There are a number of small lifestyle lots and a large reservation area protecting the Lake Seppings flood plain.

3.3.2.4 City of Albany Local Planning Scheme No.1

The City of Albany initiated a new Local Planning Scheme in February 2009 that is intended to provide statutory planning controls to implement the findings of the Local Planning Strategy. Under this, the entire subject site is zoned ‘*Future Urban*’ and development is to be guided by an adopted Structure Plan.

3.3.2.5 City of Albany Residential Design Code Policy (2007)

Clause 6.1 of the City of Albany Residential Design Code Policy recognises the Emu Point development as a location to allow for some additional building height and as a place for a Mixed Use Village Centre. The objectives of the policy are as follows:

- *“To provide the opportunity for a mixed use village centre within comprehensively planned coastal developments.*
- *To ensure that such centres provide a focus not only for local residents but visitors accessing the beach.*
- *To ensure that the development of such nodes do not adversely impact on the coastal reserve or adjoining properties.”*

This ODP includes a ‘Village Centre’ that complies with the terms of this Policy. More detail is provided in **Section 4.2.2** of this ODP.

3.3.2.6 City of Albany Detailed Area Plans Policy (2006)

The City of Albany adopted its Detailed Area Plans policy in February 2006 with the following aims:

- *“To avoid the need for separate Local Planning Policies to be prepared for individual sites where Detailed Area Plans have been required as a condition of subdivision by the Western Australian Planning Commission or otherwise required by Council;*
- *To ensure a consistent approach to the treatment of lots with access via a rear laneway, those adjoining areas of Public Open Space, corner lots, local centres and all other lots subject to a Detailed Area Plan;*
- *To provide a detailed set of provisions to guide developers in the treatment and design of dwellings with regard to setbacks, site coverage, privacy and surveillance;*
- *To ensure that dwellings on lots adjoining Public Open Space are designed to provide passive surveillance;*
- *To ensure that corner lots are designed to address both the primary and secondary streets, whilst providing a high level of privacy to future occupants; and*
- *To allow for variation of development standards where considered necessary to address site-specific criteria such as existing built form or sloping land.*

This ODP proposes a number of lots that face onto POS are accessed by laneways and are medium density. Design Guidelines and Detailed Area Plans (refer to **Appendix 10**) have been prepared that acknowledge the requirements of this policy and go further to include sustainability, building on sloping land and landscaping principles. The detail regarding built form and Design Guidelines are addressed later in this document.

3.3.2.7 *City of Albany Sloping Land Policy (2007)*

The City of Albany adopted the Sloping Land Policy in December 2007 to encourage development that is sympathetic to the natural topography of a site. The Design Guidelines and discussion of built form later in this ODP encourage building with the natural topography and reducing the amount of cut and fill within the subject site in line with the objectives of this Policy.

3.3.3 *Documentation of Relevance*

3.3.3.1 *Draft Foreshore Management Plan – Ellen Cove to Emu Point (2009)*

The City of Albany has prepared a Draft Foreshore Management Plan for the length of Middleton Bay that “...identifies the issues relevant to Middleton Beach and Emu Point reserves and provides a framework for the future management, in particular, the sustainability and environmental protection of the area.”

The particular actions within the Draft Management Plan pertinent to the subject site include:

- No further access points to the beach from the dual use pathway will be supported by the City;
- City of Albany database to be updated to ensure all management and development activities avoid disturbance or intrusion to Declared Rare or Priority flora;
- Ensuring any new foreshore developments maximise recommended setbacks from the shoreline; and
- Developing a fire management plan for the Middleton Beach area in conjunction with FESA.

The ODP is in accordance with these proposed actions and will introduce a Fire Management Plan to the subject site.

LandCorp made a submission on the draft Foreshore Management Plan when it was released for public comment that discussed the fact that the ODP will formalise the protection of the designated conservation, foreshore and recreation areas in appropriate reserves. It also requested that the draft Foreshore Management Plan recognise the Griffiths Street beach access as an access point that may need to be further addressed in terms of improvements to the public facilities and parking areas.

3.3.3.2 *Draft Lake Seppings Flood Prone Area Policy (2003)*

This Draft Policy was initiated by Council in October 2003 but it is unclear whether it was ever finally adopted. The Draft Policy seeks to apply planning controls over land identified in a previous report by Wood & Grieve Engineers, which identified the Lake Seppings flood plain and the area subject to a 1 in 100 year flood event.

Both the Wood & Grieve study and the Draft Planning Policy acknowledge that the subject site is outside of the area affected by the Lake Seppings flood plain.

3.4 Environmental

3.4.1 Climate

The climate in the Albany area is characterised by cool, wet winters and warm, dry summers. The hottest month is January, with mean temperatures ranging from 18°C to 25°C with a maximum temperature of 25.8°C, whilst in winter the minimum and maximum temperatures range between 7°C and 17°C. The coolest month is August with a maximum mean temperature of 15.5°C.

The mean annual rainfall for Albany is 936 mm, with the majority of falls occurring within the wettest period occurring from May to October.

3.4.2 Topography

The subject site consists of low undulating relict fore-dune topography running immediately parallel with the coast, with dunal heights ranging between 2 m and 9 m Australian Height Datum (AHD). The gently sloping beach to the south of the subject site is approximately 30m wide, backed by a low incipient dune and a steep fore-dune, rising to between 5 m and 9 m. These features are depicted in **Figure 3.4**.

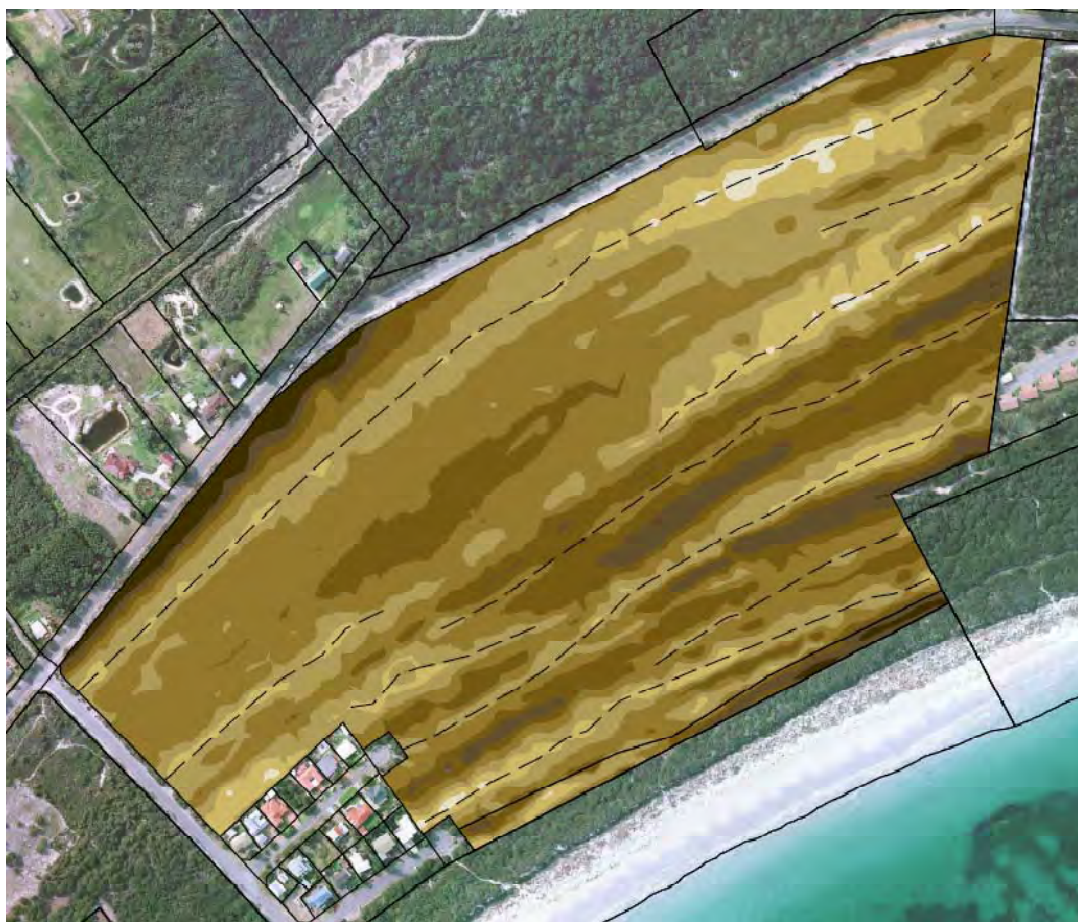


Figure 3.4 – Topography and major ridgelines through the subject site (LandCorp)

3.4.3 Geology, Soils and Hydrogeology

The subject site comprises predominantly relict foredunes, which are composed of white medium-grained sand, with rounded quartz and shell debris. The coastal dunes of the subject site are typical of local quaternary hydrogeology, which is typically characterised by coastal alluvial, estuarine, lagoonal and Aeolian (sand, clay and limestone), and minor local aquifers, which are fresh to saline.

The subject site is underlain by bedrock, comprising gneiss, metamorphic rock and granatoid in the Nornalup Complex of the Albany-Fraser Orogen. The Albany-Fraser Orogen is covered with a discontinuous veneer of the sediments of the Bremer Basin.

3.4.4 Groundwater

According to the Geotechnical and Preliminary Acid Sulphate Soil (ASS) Investigation prepared by Douglas Partners (2007) for the subject site, the groundwater survey recorded groundwater levels, quality and flow direction. The survey findings included the following:

- Groundwater depth ranged between 2.19m to 5.80m below ground level;
- Hydraulic gradient for the site is relatively flat;
- Groundwater mound probably located in the south western corner of the site; and
- A shallow aquifer exists, with the possibly of being underlain by salt water edge.

These features are depicted in **Figure 3.5**.

There are also no known domestic or Council water supply bores in the Emu Point area.

Under the provisions of the *Metropolitan Water Supply, Sewage and Drainage Act 1909*, or the *Country Area Water Supply Act 1947*, the subject site has not been identified within a Public Drinking Water Source Area (PDWSA).

More detailed information on the hydrological components will be obtained through the Local Water Management Strategy (LWMS) monitoring program which will be required prior to the subdivision and development of the subject site, which is further described in **Section 4.7.5**.

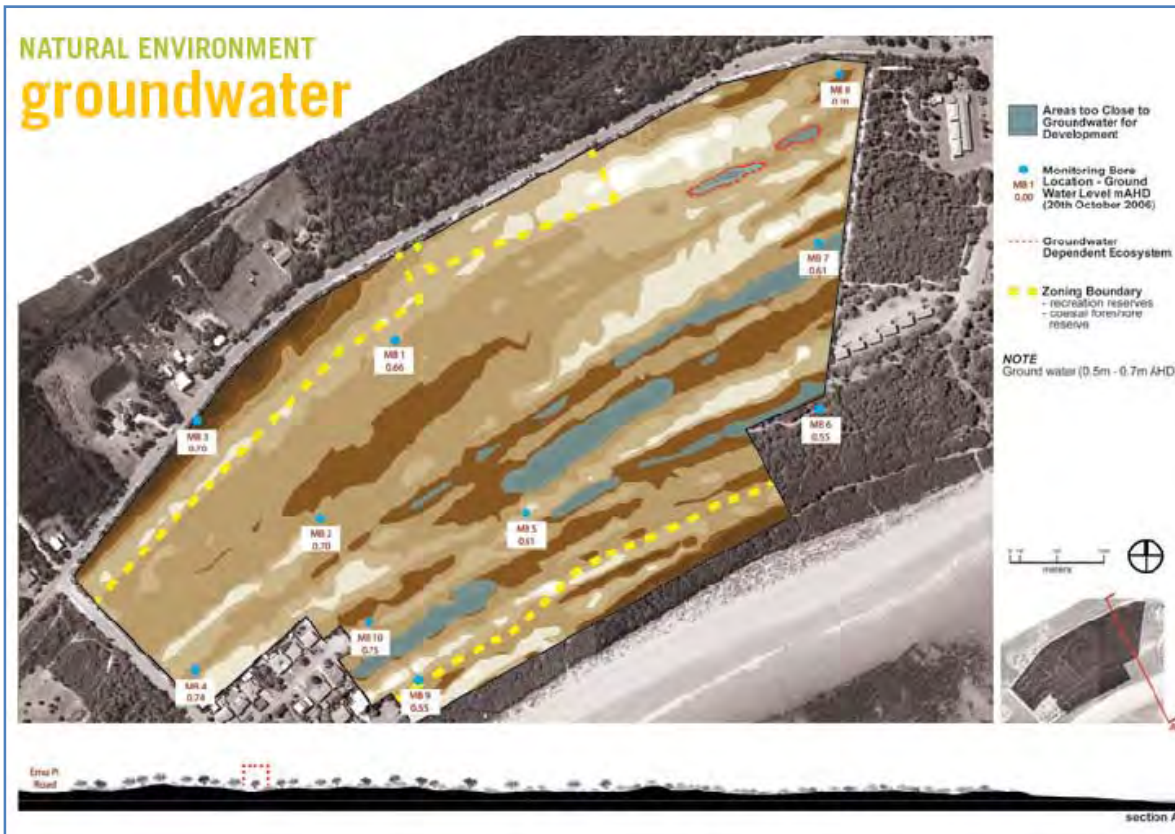


Figure 3.5 – Geotechnical Survey showing depth of ground water (LandCorp)

3.4.5 Surface Water and Drainage

The geology of the subject site comprises permeable, medium grained sand which facilitates the infiltration of water through the shallow aquifer into the ocean. There are no surface water bodies including wetlands, such as sump lands or damp lands within the subject site.

There are no distinct surface drainage lines onsite and water tends to accumulate in swales prior to infiltrating. Along the northern boundary, the subject site drains into the swales along Emu Point Drive. Stormwater disposal is expected to be facilitated through the aquifer, with no direct discharge into the Foreshore Reserve or Oyster Harbour.

3.4.6 Acid Sulphate Soils (ASS) and Contamination

Acid Sulphate Soils (ASS) are naturally occurring soils containing iron sulphides. These soils are typically benign with an anaerobic environment, however, when they become oxidised through disturbance, acidification of soil and groundwater can occur. This results in sulphuric acid which can break heavy metal bonds, releasing metals such as aluminium, iron and arsenic into the groundwater.

According to the ASS risk mapping for Albany-Torbay, the subject site has no known risk of ASS. The Geotechnical and Preliminary ASS Investigation confirmed that ASS Management is not required for excavations less than 3m below the existing ground level at the subject site. There is the potential for ASS to occur off-site near Troode Street and Emu Point Drive, as the ASS risk mapping is classified as high risk, which would require an ASS investigation and management prior to future excavation and associated works for the installation of sewer and water mains at the site. The ASS risk mapping for the immediate area is depicted in **Figure 3.6**.

There are no registered contaminated sites within or adjacent to the site and no evidence of soil contamination within the subject site. Groundwater sampling was collected and analysed for heavy metals, including arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc. The concentrations of heavy metals were below the drinking water guidelines.

Arsenic levels were recorded which exceeded the drinking water guideline value of 7µg/L by a maximum of 2 µg/L, however arsenic levels are thought to be naturally high, but there is no evidence of contamination of the subject site. There are no known historic land uses which may have resulted in contamination.

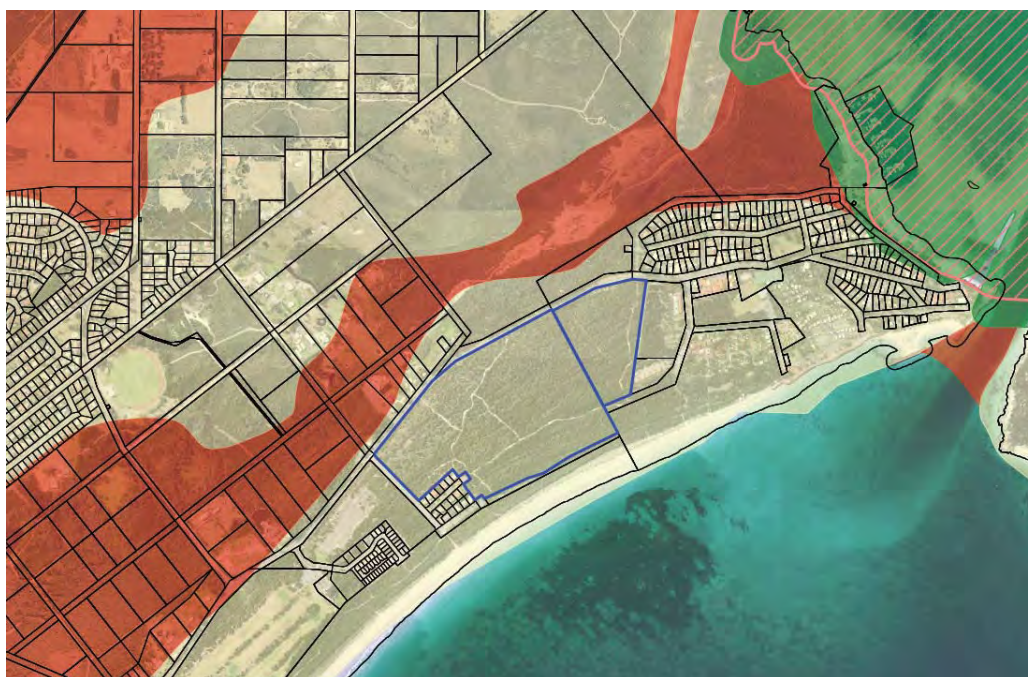


Figure 3.6 – Acid Sulphate Soils Risk Mapping - Medium to High risk shown in red (Landgate)

3.4.7 Flora and Vegetation

There are three vegetation types situated within the subject site, including Sheoak woodland, open Peppermint heath and Peppermint thicket. The majority of the vegetation across the site is in ‘excellent’ condition, with areas of Very Good to Degraded vegetation along the site boundaries.



Plate 6 – A number of good quality stands of Banksia are present through the site



Plate 7 – Albany Woolly bush is found throughout the subject site. (photos courtesy Jill Gaynor – LandCorp)

There are no Declared Rare Flora recorded on the site. Two Priority flora species are known to occur on the site, including *Andersonia depressa* (Priority 3) and *Adenanthos x cunninghamii* (Priority 4).

There are no known Threatened Ecological Communities (TEC) or Priority Ecological Community (PEC) within, or adjacent to the subject site.

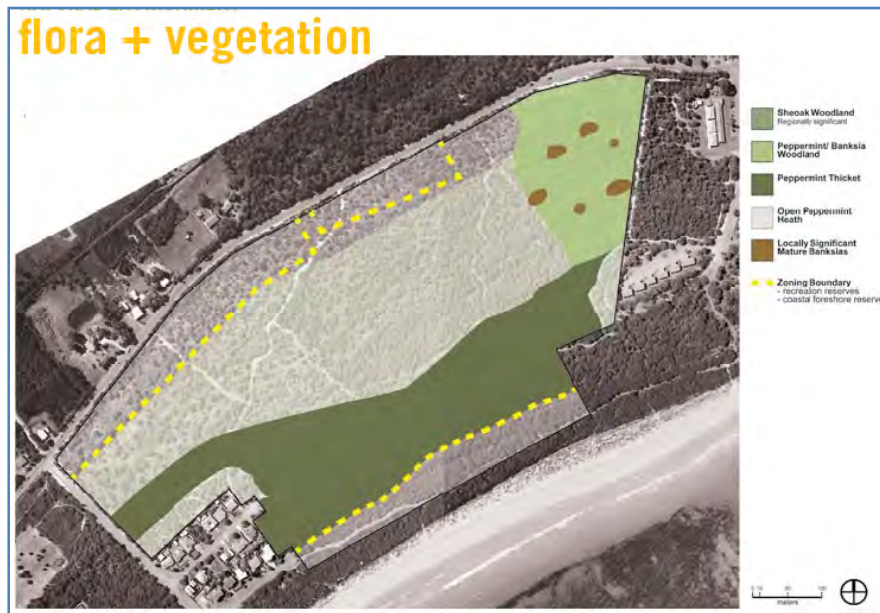


Figure 3.7– Broad description of the vegetation types within the subject site (LandCorp)

3.4.8 Plant Pathogens

Phytophthora cinnamomi is a plant pathogen which threatens different plant species in Western Australia. Once the pathogen infects the roots, the plant may begin to show symptoms of ‘dying back’, hence the common name use for the pathogen, Dieback. Dieback affects indigenous species including the four families of Proteaceae, Epacridaceae, Papilionaceae and Myrtaceae. Not all genera within a family or all species within a genus are necessarily susceptible.

There is evidence of Dieback occurring within the subject site. Further investigations to determine the extent of Dieback have been undertaken by GHD and Ficifolia Consulting. The assessment identified that:

- ~33% of the site is infested;
- ~24% of the site is ‘uninfested’, with approximately 13% of the site being ‘unprotectable’; and
- ~42% of the site is ‘uninterpretable’ due the absence of susceptible species.

Discussion on the management of Dieback during the construction phases of the development is presented in **Section 4.6.8**. The extent of the Dieback within the site is shown at **Figure 3.8**. A full assessment of the Dieback within the site is found at **Appendix 17** “Phytophthora cinnamomi Mapping” by GHD in conjunction with Ficifolia Consulting and Bio Diverse Solutions.

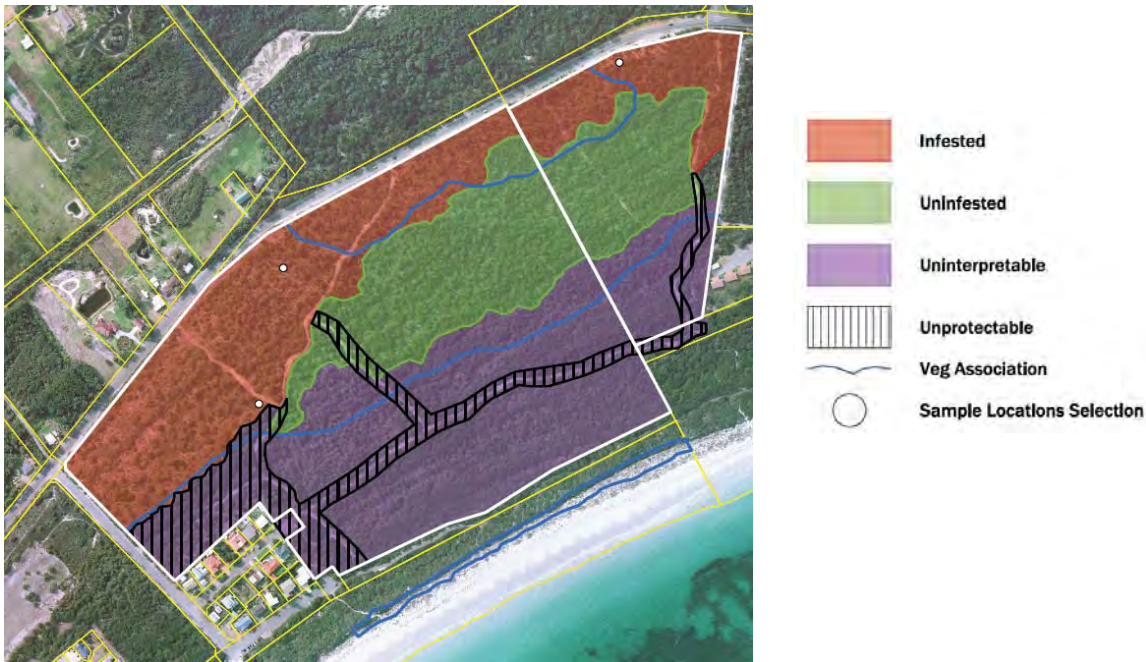


Figure 3.8: Extent of Dieback identified within the subject site

3.4.9 Fauna

Majority of the vertebrate fauna habitat on the subject site is considered to be in a very good condition based on the vegetation structure, extent of vegetation cover and refugia available to fauna. The habitat within the verge of Emu Point Drive and at the south eastern corner of the site is considered to be in good condition.

The subject site, from a regional context, is significant as a habitat area as it forms part of an almost unbroken coastal corridor of uncleared vegetation from Walpole east across the region to the South Australian border. This area is recognised in a (DEC initiative called the ‘Southern Coast Macro Corridor Project’.

Five species of significant fauna have been recorded on the subject site, including Carnaby’s Black Cockatoo, Baudin’s Black Cockatoo, Western Ringtail Possum, Quenda and Osprey. The Osprey is not a

‘Priority Listed’ or ‘Scheduled’ species in Western Australia, however, is listed as a migratory species under the *Environmental Protection and Biodiversity Conservation Act 1999*.

A number of studies have investigated the extent of the presence of the Western Ringtail Possum (WRP) within the site. WRP and their dreys have been recorded at several locations on the site, mainly in the southern portion of the site.

A Short Range Endemic (SRE) invertebrate survey did not identify any SRE species.

The PER documentation addresses the management of fauna species as a result of the development.

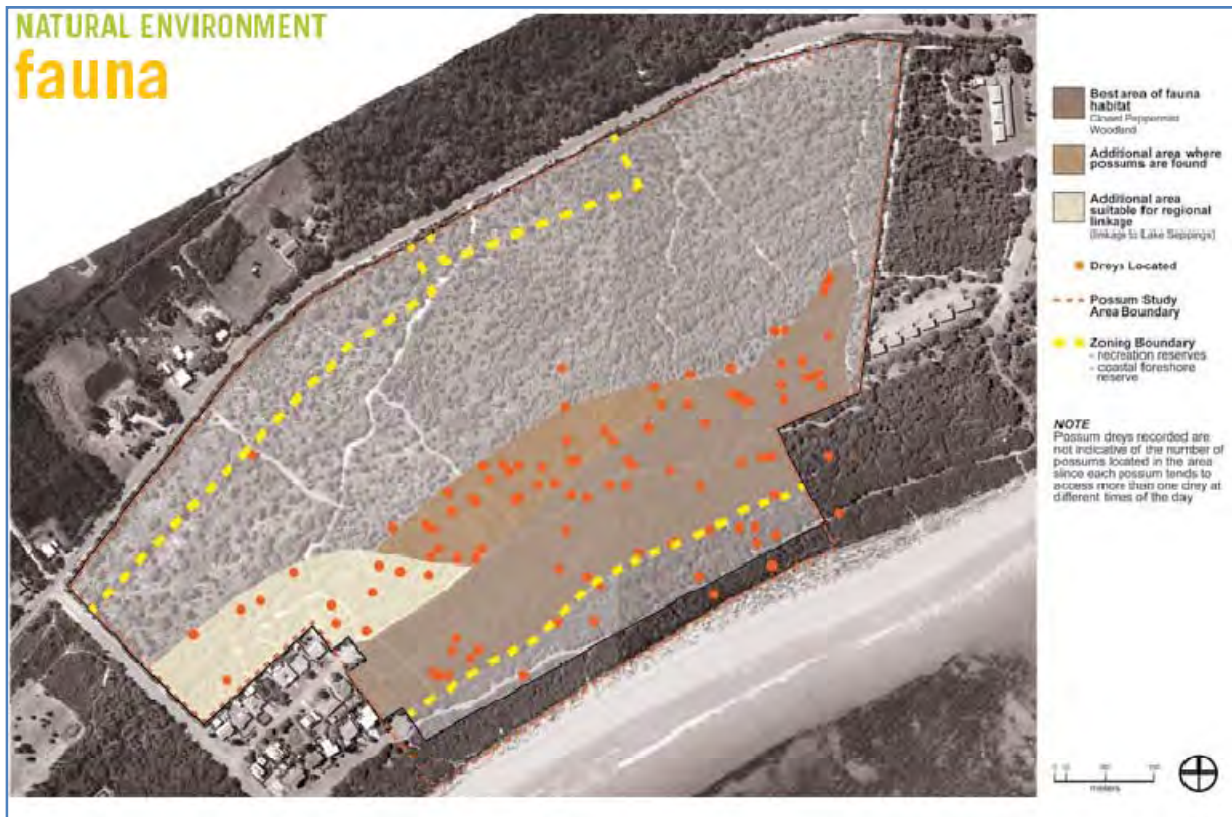


Figure 3.9 – Possum habitat and Dreys (LandCorp)

3.4.10 Environmental Sensitive Areas

Under the provisions of Section 51B of the Environmental Protection Act 1986, there are no Environmental Sensitive Areas (ESAs) within the subject site. The nearest ESA is associated with the Oyster Harbour foreshore, which is situated approximately 850m east from the subject site.

3.4.11 Reserves and Conservation Areas

The subject site immediately adjoins land zoned ‘Parks and Recreation’ Reserve within the TPS1A. A ‘Conservation’ Reserve vested in the City of Albany is situated immediately north of the subject site adjacent to Emu Point Drive.

Oyster Harbour, which is situated 850m east from the subject site, is listed as a Nationally Important Wetland.

Gull Rock National Park is situated approximately 2.6km east from the subject site, with an area of 2,000ha including several series of threatened native flora and significant stands of Scarlet Banksia. A further 400ha in the Mt Martin Nature Reserve is situated north of the Gull Rock National Park.

There are no Commonwealth or State reserves within or adjacent to the subject site.

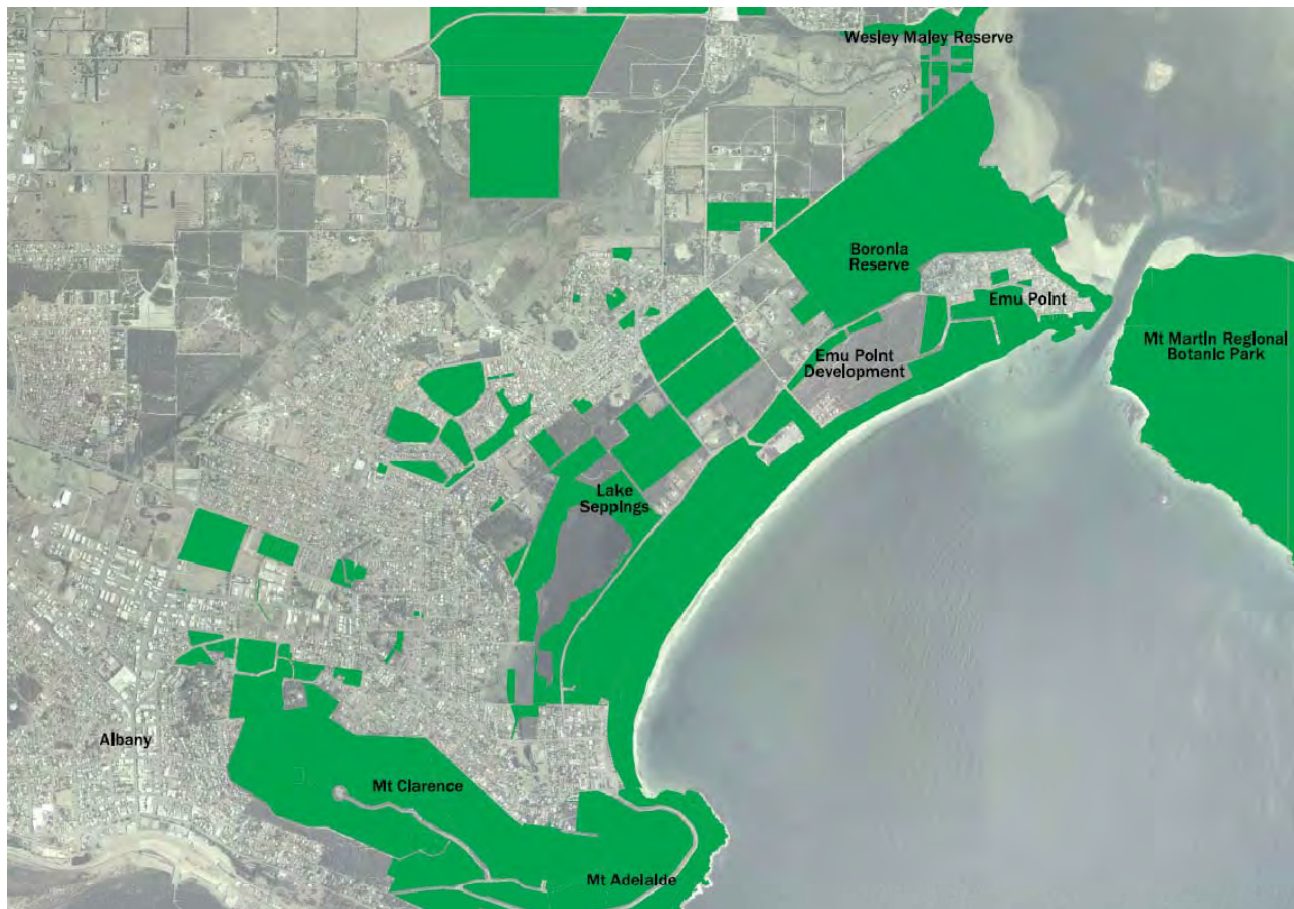


Figure 3.10 – Wider Reserve and Conservation Areas (LandCorp)

3.4.12 Weeds

Dominant weed species recorded on the subject site include the common non-aggressive weed species Ursinia (Ursinina anthemoides) and Flatweed (Hypochaeris glabra) and the more aggressive species Victorian Tee-tree (Leptospermum laevigatum), Watsonia (Watsonia bulbilifera), Sydney Wattle (Acacia longifolia) and Kikuyu (Pennisetum clandestinum).

Weed species are primarily concentrated along the verge of Emu Point Drive, along the boundary of Griffiths and Hope Street residential development and the north western corner of the subject site.

There are no Declared Plants identified on the subject site, which are those Weeds classified under the *Agriculture and Related Resources Protection Act 1976* that require specific category of control.



Plate 8 & 9 - Sydney Wattle & Arum Lily's, located throughout the subject site in varying degrees (photo courtesy Jill Gaynor, LandCorp)

Areas particularly infested with weeds are identified in the PER documentation and are shown in **Figure 3.11**.



Figure 3.11: Areas of particular weed infestation highlighted in orange (Strategen)

3.4.13 Landscape Character

As detailed above, the subject site can be described as prominent coastal dunal ridge landscaping with dense native vegetation cover. It usually forms a visually pronounced vegetated landform of gently undulating terrain formed by the low linear dunal ridges.

The subject site is only visible from a distance (middle distance and long distance views) on surrounding higher elevation terrain. Close to the site (foreground views from Emu Point Drive, Griffiths Street and along the beach front) the vegetated edges greatly limit visual access into the site. The internal portions of the site are largely unseen from close quarters.

The wider setting provides prominent higher elevation terrain, from 1km to 3km distance, in a semi circular ring from the south west around to Mt Martin and Bald Rock National Park to the south east. These prominent landscape elements allow views over the Middleton Beach dunal foreshore landscape, to King George Sound and the ocean beyond.

All views from these dominant landscape elements additionally include view lines over the low lying wetland area immediately beyond the dunal system.

The overall landscape is comprised of a mix of built residential urban development, large areas of natural vegetation, freshwater wetland bodies and dramatic coastal and ocean seascape. For the purpose of the Visual Management Plan, the overall ‘viewshed’ (landscape unit) is termed the ‘East Albany King George Sound’ landscape unit.

The sub-units to the ‘East Albany King George Sound’ landscape unit include the following:

- Middleton beach and foreshore;
- Middleton beach to Emu Point dunes;
- Lake Seppings and Collingwood flats;
- Oyster Harbour foreshore and open waters;
- Mt Adelaide and Mt Clarence heights;
- Mt Clarence, Seppings Collingwood residential heights;
- Bayonet Heads residential ridge and Oyster Harbour foreshore;
- Emu Point tourism precinct; and
- Gull Rock National Park.

Figure 3.12 identifies these landscape units in more detail.

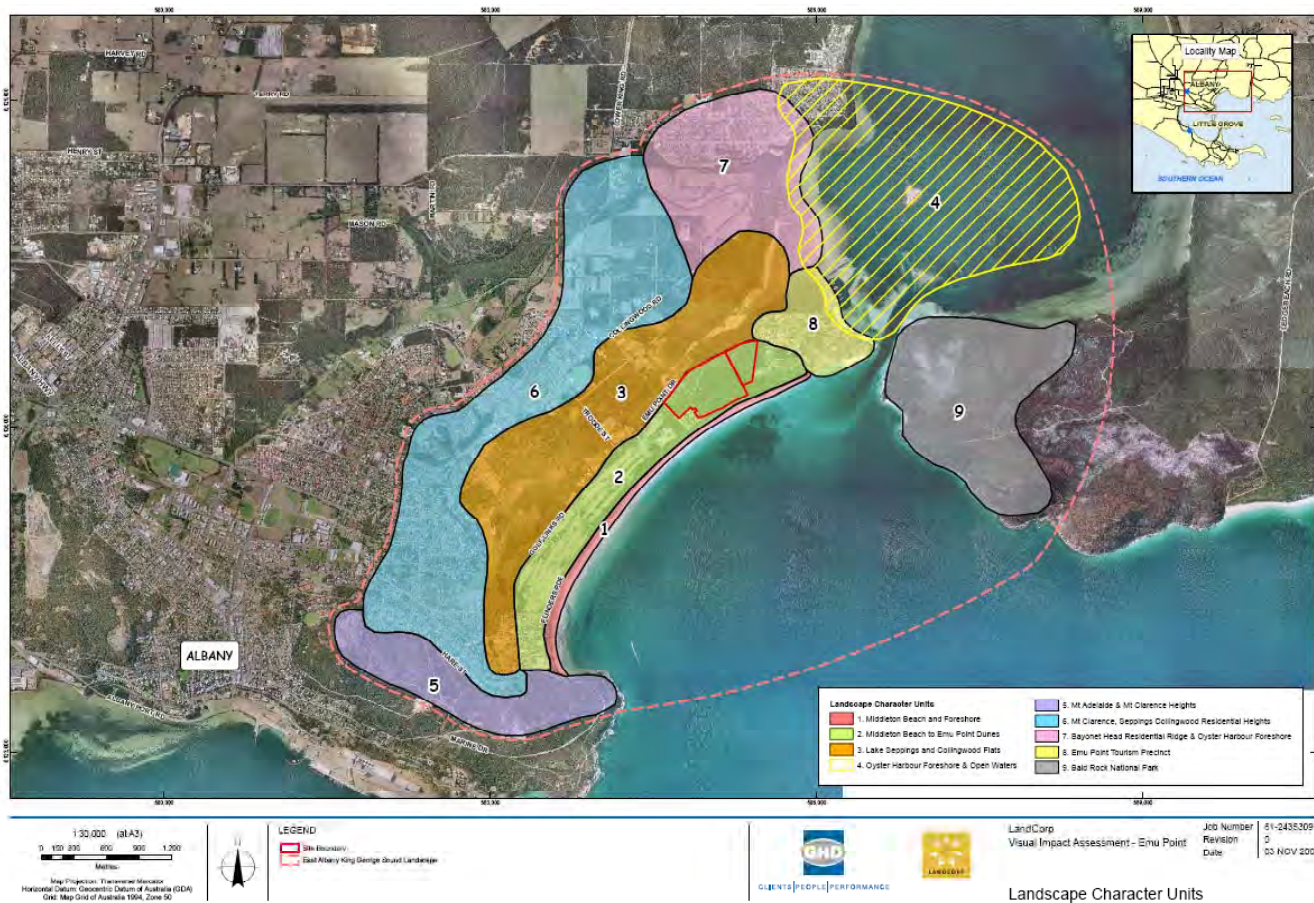


Figure 3.12 Visual Landscape Units (GHD)

It is important to acknowledge that the overall landscape is one of significant complexity, not just very diverse visual elements (urban to pristine natural), but with exceptionally powerful and dramatic landscape elements – in terms of scale, prominence and ‘visual drama’. It is in fact a surprisingly resilient landscape to change in small spatial elements within this larger complexity of a major landscape.

Visual impact for the site is further explored at Section 4.6.7 and a Visual Impact Assessment (VIA) conducted by GHD is found at Appendix 11.

3.4.14 Coastal Setback

The coastline adjacent to the subject site is characterised by reflective, low tide terrace beaches, which generally receive lower energy, refracted waves. An important consideration for development of the subject site is the coastal setback required to maintain physical coastal processes and minimise risks associated with coastal erosion.

During 2007, LandCorp engaged specialist coastal engineers, MP Rogers and Associates, to complete a coastal setback assessment for the site, in accordance with the guidelines and recommendations established in the State Coastal Planning Policy (SPP 2.6). The purpose of the assessment was to ensure that development of the site adequately allowed for physical coastal processes over a 100 year period.

The resultant recommended setback for the development was 95m from the western boundary to a point 250m east and then 105m to the eastern boundary of the site.

In addition to the consultant’s recommended setback, the Department of Transport has identified the setback in the eastern part of the site should be greater. Both setbacks are shown in Figure 3.13.

The proposed development area is located outside of the coastal setback areas identified by the Department of Transport (DoT) and MP Rogers and Associates. The closest point of the development will be 115m from the agreed coastal setback. This effectively doubles the area of the coastal setback over and above the DoT requirement. The coastal setback will be within POS and retained as bushland. Consequently, the residential area will not impact on the coastal setback requirements.



Figure 3.13: Recommended Coastal Setback (MP Rogers and Associates).

3.4.15 Aboriginal Heritage

According to an ethnographic and archaeological survey undertaken in 2007, the survey results did not identify any new Aboriginal ethnographic or archaeological sites within the subject site. The site is however, situated on the Dreaming Track of the Palyark Ancestral Being, which is ethnographically significant given its association with Palyark and being camping/resource procurement sites of significance for Nyungar people.

The survey results identified that the subject site would have been extensively used in the past by Aboriginal people travelling along the coast between Mt Clarence and Emu Point, following Palyark’s track, to congregate on the coast and estuaries down to King River during summer and autumn, when fish and other aquatic resources were abundant.

There are no known or listed Aboriginal Heritage sites within the subject site, however there are a number of sites identified in the general vicinity, including the following:

- Oyster Harbour (mythological significance);
- Green Island (mythological/historical significance);
- Kylie Site (Kylie Boomerang);
- King Point, Albany (traditional food source);
- Alfred Knapp’s Seasonal Camp (historical significance);
- Barnup (Strawberry Hill Farm) (historical significance);
- Middleton Point Camp (historical significance);
- Mt Clarence Salmon Camp (historical significance);
- Oyster Harbour Caravan Park Lake (mythological significance); and
- Yakamia Creek (mythological/historical significance).

3.4.16 European Heritage

There are four single storey cottages listed on Places Database (Heritage Council of Western Australia), which are situated on the southern side of Cunningham Street, adjacent to the beach at Emu Point, which were constructed c1920, c1903, c1948 and c1955.

The Places Database also identifies the St Martin Camp Site at Emu Point, which is listed on the City of Albany’s Municipal Inventory.

There are no known or listed State Register of Heritage Places within or adjacent to the subject site.

No heritage places listed on the Register of the National Estate are located within or adjacent to the subject site.

3.5 Native Title

The National Native Title Tribunal states, “*Native Title is extinguished on privately owned land (including family homes or freehold farms), on residential, commercial and certain other exclusive possession leases and in areas where government has built roads or other public works*” (National Native Title Tribunal. 2000, p4).

The site is wholly owned by LandCorp as freehold estate, therefore Native Title is extinguished on the site.

3.6 Existing Services

The subject site and surrounding area is currently well situated for connection to all services. The subject site has access to reticulated water, power and telecommunications and is in close proximity to reticulated sewer networks. It is anticipated that upgrades and extensions to services will be required to service the subject site and surrounding area as described in **Section 4.7**. The existing services are depicted on **Plan 2** (refer to **Appendix 5**).

3.6.1 Reticulated Water

There is an existing reticulated water service available to the subject site. At present there is an existing 150 mm PVC main along Emu Point Drive, a 58 mm AC main along Griffiths Street, and a 58 mm AC main along Medcalf Parade.

3.6.2 Reticulated Sewerage

The subject site is not currently serviced with a reticulated sewer service. The existing dwellings in Hope and Griffiths Street utilise on-site effluent disposal systems.

The closest sewer line to the subject site is the 150 mm reticulated sewerage within Medcalf Parade and Birss Street which feeds down to the Firth Street pumping station. There is a 150 mm PVC sewerage rising main running from this pump station back along Emu Point Drive on the southern side of the road. There is also a secondary pump station within the Barry Court development to the south west of the site.

3.6.3 Power

An existing overhead low voltage power line runs along the length of the subject site on the southern side of Emu Point Drive and along Griffiths Street. The existing residential area is serviced by a 50kVA pole top transformer.



Plate 10 – Aerial power lines in Emu Point Drive

3.6.4 Telecommunications

There are optic fibre cables that currently exist along the southern side of Emu Point Drive to service the Emu Point area. As well as this, there are reticulation cables along part of the site's frontage, within Griffiths and Hope Streets and to the existing end of Medcalf Parade.

3.6.5 Gas

A reticulated gas service is not available in the general area. The closest reticulation gas main is in Collingwood Road, approximately 3km away to the north west.

3.6.6 Roads

The subject site is fronted by Emu Point Drive along its northern boundary and Griffiths Street along its western boundary. Hope Street terminates in a cul-de-sac at the subject site boundary.

Approximately 2,777 vehicles travel daily along Emu Point Drive between Griffiths Street and Troode Street. This section of road is sealed to a width of 7.4 m to 7.6 m wide. Shoulders of approximately 0.6 m wide are marked by white lines, giving an effective width for motorists of some 6.2 m to 6.4 m wide.



Plate 11 – *Emu Point Drive near the Griffiths Street intersection*

Griffiths Street has been built to a width of 7.4 m. It is kerbed on both sides. No traffic counts are available for this road at the time of writing.



Plate 12 – *Griffiths Street road pavement - looking south*

Hope Street has been built to a width of 5.6 m and is kerbed on both sides of the road.



Plate 13 – Hope Street cul-de-sac - looking east toward the subject site



Plate 14 – Beach access and coastal dual use path intersect at Griffiths Street



Plate 15 – Griffiths Street is an informal parking area created by localised widening of the road pavement.

Griffiths Street turns parallel to the beach at the eastern end where it provides an informal car parking area for beach goers. Access points onto the beach are located at either end of this portion of Griffiths Street. No other public facilities are located within close proximity to the subject site.

Currently the speed limit on Emu Point Drive is 80 km per hour, between Griffiths Street and some 300 m west of Clark Street. It then drops to 60 km per hour and then 40 km per hour at the Clark Street intersection in Emu Point.

3.6.7 Public Transport

There is currently one public transport service serving the subject site and surrounding area which is the 301 bus route. This is operated by Loves Bus Service, on behalf of Public Transport Authority (PTA). The following stops are provided within the vicinity of the subject site:

- Emu Point Drive, 30 m to the east of Griffiths Street;
- Emu Point Drive opposite the Rose Gardens Caravan Park;
- Burgess Street, in Emu Point; and
- Mermaid Avenue, opposite No. 64.



Plate 16 – Bus stop 30 m east of Griffiths Street along Emu Point Drive, (photo taken looking south toward the Griffith Street intersection).

Bus route 301 currently services the subject site three time daily; 9:00 am, 10:35 am and 3:00 pm. This bus route is depicted in **Figure 3.14**.



Figure 3.14 Public Transport Routes (Public Transport Authority)

3.6.8 Pedestrian/Cycling/Horse Riding Facilities

A 2.5 m wide dual use path (DUP), which extends to Ellen Cove in the west and Emu Point in the east, is located along the southern boundary of the subject site in the former Flinders Parade road reserve. Griffiths Street effectively acts as a portion of this dual use path network.



Plate 17 – Part of the dual use path between Ellen Cove and Emu Point

At the western end of the subject site, a 2.5 m wide dual use path is located on the western side of Griffiths Street and connects the subject site to the north toward Collingwood Road.



Plate 18 – The subject site is well connected to the City of Albany dual use path network – DUP running north away from the Griffiths Street toward Collingwood Road.

Separate horse access is identified in Griffiths Street to service the local horse trainers who use Middleton Beach to train horses early in the morning. Feedback from local residents indicates that the horse trail is not used and that horses tend to use Griffiths Street for access to the beach.

Signage at Middleton Beach further controls and separates horse and dog activity in this area.



Plates 19 and 20 – Horse access and use of the beach is regulated by the City of Albany

4.0 OUTLINE DEVELOPMENT PLAN

4.1 Design Philosophy

The Emu Point Outline Development Plan (ODP 007) has sought to apply the principles of sustainable development from the conception phase through to construction. The proposal is consistent with WAPC Liveable Neighbourhoods policy document.

The ODP creates a residential development comprised of 133 lots which will accommodate approximately 260 housing units and 650 people (assuming 2.5 people per household). The ODP recognises the environmentally sensitive nature of much of the site, concentrating development within the more capable land and securing approximately 60% of the site as open space. **Appendix 1** provides the ODP.

The vision for the Emu Point development is for a development showcasing sustainable development for the Great Southern Region from the initial concept, to subdivision design through to the landscaping of individual lots.

The development will be a high quality, walkable community that responds in a sustainable fashion to the site's opportunities and constraints with a focus on its relationship with the surrounding bushland and coastal environment. Houses will be designed sympathetic to the natural surroundings with a series of measures established to encourage sustainable development throughout the site.

The plan brings together many competing interests and issues and finds a balance through providing a coherent, coordinated design response. Key elements of the ODP include:

- Retention of 60% of the site as POS with generous areas of bushland being retained to provide a system of linked nature reserves both within and external to the site.
- Retention of native vegetation throughout the development footprint within road reserves and residential lots and enhancement of the existing bushland areas through re-planting and weed management.
- Ecological corridors provided along the edge and throughout the development to link the proposed POS and foreshore reserves with surrounding reserve networks.
- The provision of 'green spines' or 'bushland corridors' throughout the development; retaining vegetation, providing a suitable setting for future housing, breaking up the urban form when viewed from a distance and encouraging walking within the development.
- The provision of a Village Centre to provide a focal point for the community, providing potential for a deli/cafe and other mixed use land uses.
- Providing a range of residential densities and housing types to cater for a wider cross section of the community.
- Higher residential densities concentrated around the Village Centre to encourage walking within the development and reduction in vehicle use.
- The integration of the existing Hope Street community into the new development by bringing deep sewerage and improving public infrastructure and facilities to a standard commiserate with the proposed development.
- Achieving a balance between fire management and retention of native vegetation.
- An increased foreshore reserve that secures the high quality vegetation and possum habitat as part of the wider reserve system.
- Providing additional community benefits to the local and wider Albany community by upgrading the access to the beach and improving parking in Griffiths Street.
- Minimising major earthworks and working with the topography wherever possible.
- A standard of public infrastructure that minimises ongoing maintenance issues for the City of Albany. However due the large areas of public open space a 'Specified area Rate' is proposed for the new development to provide the local government with additional capacity to address the ongoing maintenance requirements such as weed management and public landscaping.

Given the large areas of proposed POS, the extensive use of high quality landscaping and public infrastructure and the ongoing need for weed management, the City of Albany may wish to consider applying a ‘Specified Area Rate’ to the Emu Point residential development to raise additional funds to cover the ongoing maintenance of the subdivision.

4.1.1 Development Objectives

The objectives for the Emu Point development have been based on the ‘Triple Bottom Line’ approach to ensure social, environmental and economic sustainability.

The objectives in **Table 2** have been identified and refined throughout the various consultation and concept planning phases and have been integrated into the ODP.

Sustainable Principles	Objectives
Social	<ul style="list-style-type: none"> • Creating a place that integrates well with the existing surrounding areas • Creating a place that feels welcoming and accessible, not only to residents, but to the broader Albany community and visitors • Creating a community, not simply a housing estate • Creating a place with a great “feel” about it • Creating a community comprising a diverse range of people
Environmental	<ul style="list-style-type: none"> • Respecting topographical and landform features of the existing surrounding area • Protecting significant vegetation • Protecting significant fauna habitat, including wildlife corridor • Environmentally sensitive design associated with individual dwellings and beyond the lot boundaries
Economic	<ul style="list-style-type: none"> • To support and not detract from the existing facilities at Emu Point • To assist with the funding of the Waterfront at Albany project • Relative affordability through a range of housing sizes and options • Environmentally sensitive housing design initiatives to reduce building life cycle costs for landowners

Table 2: Emu Point Residential Development Objectives

4.1.2 Community Consultation Response

The original Concept Plan was presented to the community and other stakeholders in May 2009. An updated plan was presented to the individual landowners in Hope and Griffiths Street in February 2010. Numerous changes to this plan have occurred that respond to community and local consultant feedback. These are summarised as follows:

- The development footprint remains the same, the composition of the different precincts has varied;
- The placement of the clustered lots at the eastern end of the development provides for a more flexible style of development that responds more sensitively to the topography and quality of vegetation;
- Additional medium density housing has been included closer to the Village Centre to support the centre and provide more housing for people within close walking distance to the centre;
- The laneway on the northern boundary of the Hope Street lots has been widened, the number of dwellings along this boundary reduced and a landscaping strip included;
- Medium density housing has been provided along the side fences of the end properties in Griffiths and Hope Streets to increase the number of lots backing onto these properties from 5 to 7. A wide landscaping strip/development exclusion area has been introduced along the rear boundaries of

these lots in order to retain some existing vegetation and keep housing well away from existing residents;

- Access trails to the beach and towards Emu Point have been rationalised resulting in retention of more bushland by utilising existing trails wherever practical;
- Some lookouts have been removed, pending a more detailed assessment of their location as part of the Landscaping Master Plan;
- A proposed shared path system has been introduced around the edge of the development;
- Sensitively placed active open space areas have been included in a bushland setting;
- A more direct trail to the existing bus stop has been provided;
- Griffiths Street beach access area is proposed to be upgraded with parking formalised, road width reduced, shared path separated from the roadway and additional ‘friction’ created to slow traffic;
- A potential lease area, reserved in a separate manner to the rest of the bushland, has been provided as an option at the end of Griffith Street to allow for the development of a cafe, food stand, public toilets, barbeque area, and/or beach showers and the like; and
- A series of substantial median islands have been introduced to slow traffic and provide a safer crossing point for people and fauna.

The changes are a response to public submissions and a review by the local consultants appointed by LandCorp to prepare the ODP.

The main reasons for the changes are to bring the development in line with the vision and objectives for the Emu Point development including the retention of natural topography and good quality bushland, a pedestrian friendly, walkable community with less reliance on the motor car, a sustainable development in a bushland and coastal setting and to enhance opportunities for neighbourhood interaction.

These changes increase the sustainability of the development by:

- Increasing the amount of quality vegetation retained within the development footprint by placing the cluster lots at the eastern edge where there is higher quality vegetation and placing the single house lots on the flat land where the vegetation is of a lesser quality;
- Increasing the amount of overall bushland that may be retained or regenerated by using existing trails wherever possible for beach access and revegetating the trails that are not required;
- Reducing the need for changes to the natural topography by placing the cluster lots at the eastern end so grouped dwelling development can respond to the natural lie of the land. The access points to these clusters are situated in the low point of the landscape to assist with drainage;
- Creating more ‘bumping places’ for the community to meet by creating a number of active recreation areas set in bushland;
- Creating more pedestrian friendly environment by slowing traffic, providing safe refuges and more footpaths and shared paths within and through the development; and
- Creating another meeting place, improving public facilities and providing a quality destination for tourists and locals, allowing for a place for future cafe/food stand/bbq area/public facilities at the end of Griffiths Street. This will provide a node and a beach-side focus for the new and existing residential areas.

4.1.3 Local Residents

Further to **Section 2.3** of the ODP, the ODP has been amended to respond to the concerns of local residents in the following manner:

- Widening of the laneway and introduction of a landscaped strip along the rear of Hope Street residential properties;
- The introduction of a substantial landscaped, rear setback to dwellings backing onto the end of Hope and Griffiths Street residences;
- The reduction in the total number of lots backing onto the existing residential area from approximately 23 to 20. In particular, the previous 17 townhouse lots have been removed and replaced with 13 wider, medium density lots;
- Landscaping packages have been offered to upgrade the existing road reserves to a standard more in keeping with the proposed development area;
- Confirmation that no vehicular link would be provided from Hope Street into the remainder of the development;
- Upgrading of beach access points to reduce sand blowing into residential areas;
- Introducing traffic calming measures to the Griffiths Street extension; and
- Additional fire protection measures around the perimeter of the development footprint to balance between vegetation protection and fire management.

Importantly, most residents raised concerns with a substantial increased use of the beach, Griffiths Street and the parking area by horses and their trainers early in the morning. Whilst this issue is not development issue for the ODP, it is a local government issue, and feedback from local residents has been forwarded to the City of Albany for action.

The local residents raised issues such as requesting a green space buffer around the existing community, moving the development well away from the Hope Street residents and retaining Griffiths Street as a cul-de-sac. These requests have not been accommodated for the following reasons:

- The existing fire protection measures are inconsistent with the Planning for Bushfire standards. Edging the development with new housing, road and path network will help address this issue;
- Existing side and rear fences adjacent to the bushland present an inactive edge resulting in weed infestation, dumping of garden refuse and lack of passive surveillance;
- Good planning should dictate that any new development integrates with existing development to avoid any division between the future communities and enable existing residents to access new facilities;
- The Village Centre needs to be located adjacent to Griffiths Street to provide access to passing traffic, to increase the financial viability of the Village Centre and to be close to the existing bus stop for public transport access; and
- Griffiths Street is retained as a through road for permeability of design, emergency vehicle use (particularly fire response), reducing the number of vehicles using Griffiths Street (by stopping the vehicle that turns around at the end and returns via the same route) and to increase the integration of the new development with the existing residential area.

The ODP attempts to provide an ‘intermediary’ green space around the existing residential area through a landscaping strip along the widened laneway and a landscaped development exclusion area along the rear of lots. The existing residential area has effectively been enlarged, by ringing it with medium density development, and then provided with a green space around the new edge. This allows people to live close

to the Village Centre and beach, whilst addressing the fire issues and providing development that addresses the surrounding reserves.

The benefits to the wider Albany community of providing this new show case sustainable development must be weighed against the natural resistance of the existing community to change.

It should be borne in mind that there are benefits to the existing residents through becoming part of a wider development including the following:

- Access to the Village Centre and the potential future cafe/deli facility;
- Access to parks and modern facilities within walking distance;
- New street trees on the road verges will be offered to those landowners who wish to participate;
- Improved beach access with reduced sand impacts on adjacent residents;
- Slowing traffic and providing a turning pocket or roundabout near the Emu Point/Griffith Street intersection will improve road safety;
- A reticulated sewerage service will be provided;
- Improved bushfire management of the adjacent bushland; and
- A redesigned and redeveloped parking and shared path in Griffiths Street to work through any parking and access issues.

4.1.4 Opportunities

As part of the design and detailed planning, an Opportunities and Constraints Plan has been developed (refer to **Appendix 6**). Firstly, this identifies the areas of the site suitable for development. Subsequently, the opportunities and constraints have guided how the development should be designed to properly integrate with the site and meet the agreed development objectives.

The development site has a number of opportunities given its size and location. The opportunities identified are:

- The site is located in a coastal setting, providing future residents with direct access to the beach, which promotes a higher quality of life.
- Core services are available in the area, such as power, water, sewer and telecommunications.
- The site is essentially an infill development linking existing developments to the west and east, which does not promote urban sprawl.
- Vegetation on parts of the site has failed to regenerate to the same standard as other areas following a substantial bushfire and there is evidence of weed and dieback infestation. Development can occur without requiring pristine bush to be removed.
- The site of the development allows for the inclusion of a Village Centre to act as a focal point. This will promote a small cafe/deli to service new and existing residents as well as allow for medium density housing.
- The size of the site allows for a range of housing choices and lot sizes to be provided, which will attract a wide range of resident types from young families to aged persons.
- The site is located close to existing recreational areas, including the Albany Golf Club and Emu Point.
- A public bus service is available to reduce car reliance in this locality.
- The presence of east-west running dunes allows for the development to follow the contours and provide for excellent northern sun access to promote energy efficiency.
- The slope of the site can be used to its advantage rather than requiring large scale clearing and re-contouring of the development area.

- The soils on the site are conducive to development being free draining with groundwater sufficiently low for the majority of the site.
- The development will be large enough to consider sustainability in a meaningful way, such as water and energy efficiency and provision of high quality POS.
- Sufficient land is available to ensure a cost effective development can occur without the need to reduce the environmental qualities of the site and to ensure the viability of the project.
- Development in this location will increase the viability of existing services and facilities in the locality.
- Development will require reticulated sewer to be extended to the site. This will allow existing residences in Griffiths and Hope Street to connect in the future, which will have positive environmental benefits on nutrient levels entering the groundwater system.

4.1.5 Constraints

As with the site opportunities identified above, a similar exercise was undertaken to identify the constraints to development. The constraints were further refined by the various additional studies undertaken to support the ODP and Public Environmental Review (PER).

All site constraints have been taken into account in the ODP. Due to the location of the site in a vegetated coastal environment, most of the constraints relate to environment factors. However, other constraints, such as infrastructure have also been taken into consideration.

The constraints identified are outlined below:

Environmental Constraints:

- Coastal setback requirements of the Department of Transport and the need to cater for the possibility of sea level rise in the future.
- The site includes areas of Western Ringtail Possum (WRP) habitat and other declared and endangered fauna and flora species, including Albany Woollybush and Carnaby's Black Cockatoo.
- Large areas of the site contain high quality native vegetation, including peppermint thicket, peppermint/banksia woodland and sheoak woodland areas. These areas are to be maintained due to their importance in providing a wildlife corridor between Emu Point and Middleton Beach, as well as to protect the habitat of declared rare species.
- It is necessary to retain viable vegetation corridors around and within the site to link to the bushland to the west, east and north.
- There are areas of the site that are infested with declared environmental and pest weeds. These areas need to be managed accordingly. Further, weed management once the development is completed will need to be considered to protect the quality of the remaining bushland areas.
- There is an identified area of dieback on the site. This will need to be managed to reduce spread through a number of management techniques during and after construction. Dieback will be a major threat to the health of the remaining vegetation into the future.
- Areas of the site have groundwater levels that are too close to the surface to allow for development without fill. As major earthworks are to be avoided, these areas are to be avoided wherever practical by the development footprint. Due to the presence of groundwater, drainage and landscaping will need to be designed to avoid nutrient infiltration into the aquifer.
- The sand dune ridgelines will need to be protected to minimise wind erosion occurring by retaining vegetation cover.
- Surface drainage is affected by the ridgelines through the site and the catchment divide that parallels Emu Point Drive. Drainage flows will need to be taken into account to ensure that run off remains as pre-development flows in accordance with WAPC and DoW guidelines.

Tenure Constraints:

- The site is surrounded by Crown reserves to its west, south and north. Access directly to Emu Point Drive from the site is limited as a consequence.
- The Hope Street residential precinct is currently developed for single residential purposes. Interaction with this existing lot density and layout will need to be considered.

Infrastructure / Economic Constraints:

- Reticulated sewer is not currently available to the site and will need to be extended to allow development to occur.
- Road access directly onto Emu Point Drive is limited to a single point. In order to provide greater sight distances to improve safety of the intersection, the intersection is to be constructed further east than originally planned in the 1970's.
- Extension of Hope and Griffiths Streets into the site is not supported by the existing residents.
- The undulating nature of the site and the proximity to groundwater and the wetlands must be taken into account when considering stormwater disposal from roads and other hard surfaces.
- All urban services (roads, water, power, telecommunications, etc) will need to be brought in to the development.
- The limited area of the site available for development and the need to obtain a suitable lot yield will require innovative solutions to allow for the costs associated with construction and servicing to be renumerated.

Social / Community Constraints:

- The existing residents located in Griffiths and Hope Streets have indicated they do not wish to be integrated into the development, nor have significant development adjacent.
- Access between the development and the beach will need to be managed to ensure that the retained bushland areas remain viable and habitat of rare species is protected.
- Access to the shared path along the southern side of the site will need to be retained and remain open at all times during construction.
- Dust, noise and vibration impacts on surrounding residents during construction will need to be considered and appropriate measures implemented to reduce impacts and/or respond to property damage.
- Griffiths Street acts as a bridle trail connection between the beach and horse properties. The development will need to consider the importance of this route to local horse owners and riders.
- The development will need to take into account the high quality visual amenity of the coastal location and the major recreational use of King George Sound and the coastal reserve. New development will need to complement the coastal and bushland attributes of the site and ensure it has as little visual impact as possible.
- The cost of providing a local deli/cafe and other recreational facilities will need to be supported by a large enough residential population to ensure the viability of these facilities.
- The site is currently separated from educational, shopping and medical facilities. Although these are easily accessible by car, the development will need to consider alternatives to car travel to access these facilities, particularly cycle paths and bus frequency.

The above constraints have been incorporated into the ODP to provide the resultant development concept that seeks to address each of the constraints in a manner acceptable to the community and regulatory authorities.

4.1.6 Sustainable Principles for Development

The State Sustainability Strategy of Western Australia defines sustainability as “meeting the needs of current and future generations through an integration of environmental protection, social advancement, and economic prosperity”, and increasingly there is growing community expectation that best practice will be applied in accordance with these principles. This ODP reflects current thought in applying the sustainability philosophy to all aspects of the planning and development process for this project.

This project has been characterised by a strong commitment, since inception, to meaningful engagement with the community and regulatory authorities. This dialogue has been highly beneficial, resulting in significant adaptation of the early concepts and is reflected in the final ODP design, Landscape Master Plan and Design Guidelines for the development.

The ODP is a reflection of the design team’s response to local knowledge, research and community and regulatory authority expectations, measured against the following sustainability principles.

Social

The State Sustainability Strategy states that (social sustainability)... “seems frequently to fall off the sustainability agenda or to take second place to environmental and economic concerns, despite the fact that it is so critical to the lives of individuals and communities and to the overall health of our society”. Through the provision of an extensive range of interactive spaces, including the provision of a community hub and recreational zones, increased opportunities are created for social interaction. This is critical for the development of social capital and a strong sense of place. The diverse range of lot sizes and development opportunities will further enhance the vibrancy of the development. The proposed development has been sensitively designed to incorporate the existing residential community on the site by respecting space and privacy and providing increased social opportunities.

Environmental

Community focus workshops and submissions have continually highlighted the high value that respondents place on the existing conservation values of the site. Subsequent environmental monitoring has provided the proponent with the baseline data required to formulate an appropriate response to these issues. These responses have included a reduction in the developable footprint to approximately 40% of the total lot area, increased coastal setbacks, revegetation of degraded areas and the creation of significant conservation reserves and corridors for the preservation of species diversity.

In addition, the Landscape Master Plan includes recommendations that will incorporate habitat for existing plant species on the site, within street plantings, verges and private lots all of which will adhere to Water Wise principles.

Creative engineering solutions including road design, lot layout and orientation, on-site stormwater management and minimal disturbance of the existing topography will further reduce the environmental impact of the proposal. These components will lead to a reduction of imported fill and the energy associated with their transport.

Integration with the existing shared paths network provides further opportunity to reduce auto dependence.

Economic

The development is driven by a need to be economically viable and provide a financial return to government as part of its commitment to the Albany Waterfront development. The development will also provide economic opportunities for local business during the construction and build out stages of the project and provide for a range of employment opportunities for the local community.

The ODP recognises that there exists disproportionately high unemployment levels within the local Menang community. As a means of providing employment opportunities consideration will be given by the proponent, via an MOU, to enter into agreement with a local service provider to ensure significant employment and training opportunities flow through to this community during the landscaping, monitoring

and revegetation programs. Further long-term employment opportunities may also exist through the developments integration with the Kinjarling Walk Trail Project.

4.1.7 Sustainability Framework

A key requirement in the preparation of this document is that the ODP provides a clear framework to guide and measure the sustainability of the development against a predetermined set of objectives.

The Sustainability Checklist is in full at **Appendix 12**.

In order to meet this requirement the design team has identified the key social, environmental and economic criteria for the Emu Point Development as follows:

- Water inputs, discharge and quality;
- Energy consumption (development and post construction stages);
- Greenhouse emissions;
- Preservation of Biodiversity;
- Visual amenity;
- Topography;
- Identity, character and cultural heritage;
- Transport and auto dependence;
- Housing design;
- Demographic diversity;
- Security;
- Waste;
- Community development and wellbeing;
- Local and indigenous employment; and
- Tourism development.

For each factor the KPI/matrix identifies the following:

- Objectives - The desired outcome;
- Indicator - The measure to determine compliance;
- Target - The desired minimum measure;
- Implementation Strategy - The mechanisms and design rules; and
- Agency/organisation or individuals responsibility

Note: not all sustainability goals can be mandated; some will rely on individual commitments from landholders.

The Key Performance Indicators (KPI's) best reflect current sustainable thinking and whole of community aspirations.

The Design Guidelines introduce an innovative point system that dictates minimum required goals whilst providing a flexible approach to permit alignment of personal preference against the KPI's. The Design Guidelines will encourage residents to push the boundaries of current sustainable thought through the provision of creative solutions that best reflect advancement in technologies.

An audit will ensure compliance through an extensive checklist of measurables during the subdivision and development stage, whilst relying on the Design Guidelines during the build out stage.

4.1.8 *Landscape Master Plan*

The Emu Point development site is set in an area of outstanding beauty. The Landscape Master Plan aims to make the most of this asset and establish new landscapes in such a way as to ensure the natural beauty of the setting remains an asset for the community into the future.

Recommendations for landscape treatments complement the existing landscape character, whilst at the same time recognize the need for practical considerations such as:

- The ongoing maintenance of the subdivision;
- Fire prevention considerations;
- New home owners' personalization of their gardens; and
- Provision of areas that will accommodate higher recreation intensity levels.

Detailed landscape design aims to:

- Strengthen site legibility (i.e. through entry point highlights);
- Support fauna safety and community use (i.e. ensuring accessibility and the creation of 'bumping' places to build interaction);
- Incorporate CPTED (Crime Prevention Through Environmental Design) principles (i.e. allowing for passive surveillance etc.);
- Support sustainability principles (i.e. by designing for walkability etc); and
- Respect the topography and character of the site (i.e. through sensitive material and finish selection).

Plant species selection will focus on:

- Protection of the existing bushland quality (i.e. avoiding weed species);
- ESD principles (i.e. using 'water-wise' plants); and
- The development of a palette of plants to build a landscape character that will reflect the quality of environment and setting envisaged for the development.

The Landscape Master Plan will include typical sections, concept sketches for key areas and planting recommendations for elements such as fire resistance, weed control and dieback resistance.

The Landscape Master Plan is in full at **Appendix 13**.

4.1.9 *Urban Design (Streetscape) Principles*

Urban design is focused on the built form of a development, which includes not only homes but also the streetscape. The character of new buildings will need to work in harmony with elements such as paving, street furniture, signage, colour and material palettes and landscaping.

Urban design also relates to the function of a place, including the design of pedestrian movement, activity nodes, key views and vistas and the interface between private and public places. Urban design considerations have been incorporated into the ODP and are further developed in the Landscape Master Plan and Design Guidelines.

4.1.10 Specified Area Rate

Local governments have the power, under Section 6.37 of the Local Government Act 1995, to impose specified area rates for the purpose of meeting the cost of a specific work, service or facility on a specific area of its district.

A local government may impose a specified area rate if it considers that ratepayers:

- Have or will benefit from;
- Have access or will have access to; and
- Have contributed or will contribute to the need for a work, service or facility

Local governments are required to use the money from a specified area rate for the purpose for which the rate is imposed in the financial year it was introduced, or place it in a reserve account. A local government may only use money raised to meet the cost of providing that service or to repay money borrowed to meet the cost of the service.

The ODP proposes large areas of public open space and high standard of infrastructure. Whilst every endeavour will be made through the Landscape Master Plan and Design Guidelines to reduce the maintenance burden on the City of Albany, matters such as ongoing weed management and maintenance of path networks may require additional resources in the long term.

Therefore it is proposed that the City of Albany apply a Specified Area Rate to the Emu Point Residential Development. Prospective purchasers will be informed of the rate to prevent any objection by the landowners into the future.

4.2 Subdivision and Development Control

4.2.1 Overview

The development footprint has been broken into various precincts to assist in describing the finer details associated with the development proposal and its direct relationship to achieve the ODP aims and objectives.

These precincts are subsequently broken down further into land use, built form and public space. Each sub-heading is intended to clarify the controls necessary to make the Emu Point development a successful and sustainable development. **Figure 4.1** provides the Precinct Plan.

Specific land use controls are described in each precinct section below and are depicted on the ODP (refer to **Appendix 1**).

Built form controls are also described in the sections below but detailed and enforced through Design Guidelines and Detailed Area Plans as depicted in **Appendix 10**.

The use of public space throughout the development is described in the remainder of these sections and broadly in **Section 4.3**. Details are also provided in the Landscape Master Plan as depicted in **Appendix 13**.

The opportunities and constraints described in **Section 4.1.3** and **4.1.4** are responded to using sustainability and *New Urbanist* principles which shape the ODP. The various elements of the ODP are described in more detail in the remaining sections of this document.



Figure 4.1 – Precinct Plan

4.2.1.1 Overview - Land Use

The focus for the development is on a Village Centre developed with a combination of higher density residential development and potential spaces for ground floor commercial activities. This will provide adaptive space for the provision of a potential future deli/cafe as a meeting point for the whole development. Supporting the Village Centre is medium density housing, bringing people together within close walking distance of the Village Centre and creating a lively and active meeting place. The density of development graduates out to low density 'cluster lots' at the eastern edge that are well linked with a strong pedestrian network back to the Village Centre.

A pedestrian friendly, slow speed environment is provided linking residential areas with the Village Centre and the beach. Over 60% of the site is provided as POS.

Town Planning Scheme 1A (TPS1A) requirements for the 'Residential' zone apply unless varied by the details in the individual precincts below or by the Design Guidelines and Detailed Area Plans adopted as a planning policy under TPS1A.

The residential densities applied to the site are as follows:

- Single House and Cluster Lots – R20 (500m² average, 440m² minimum);
- Medium Density Solar Lots - R30 (300m² average, 270m² minimum);
- Village Centre & Terraces– R40 (Grouped Dwellings - 180m² average, 160m² minimum); and (Multiple Dwellings – 166m² average).
- Apartments (within the Village Centre) – Density to be determined by a vertical building envelope established by the Design Guidelines.

In order to achieve these densities, development will need to appropriately address all relevant requirements of the R-Codes relating to:

- Streetscape
- Boundary Setbacks
- Open Space
- Access and parking
- Site works
- Building height
- Privacy
- Climate
- Incidental development.

In relation to the Village Centre, any mixed use development will be guided by the mixed use development requirements of the R-Codes. It is noted that the Development Guidelines for the site and the City of Albany Residential Design Codes Policy may replace or elaborate on specific provisions of the R-Codes.

4.2.1.2 Overview - Built Form

The built form of the Emu Point development will contribute greatly to the measurable success of the development as a sustainable development.

The architecture of the development will reflect the qualities of the coastal environment and natural attributes of the site, taking into consideration the placement of the buildings, materials and design aesthetics of the Emu Point locality and wider Albany region.

It is envisaged the built form of the development will be site specific to each precinct, but the principles outlined below will be incorporated into the built form across the whole site.

1. *Passive Solar Design*

- All new buildings on the site will be designed to maximise the opportunities for passive solar heating, natural lighting, cooling and ventilation within the houses.
- Dwellings should be designed with living areas on the north side to maximise solar gain during the winter months into all indoor and outdoor living areas and bedrooms.
- Shading should be provided to all openings to restrict solar access during the summer months.
- Natural lighting should be maximised throughout the dwellings.
- Natural ventilation should be maximised throughout the dwellings, utilising the prevailing south easterly sea breezes.

2. *Roof Forms*

- The roof forms will reflect the coastal environment of the development's setting.
- Contemporary roof forms will be encouraged that maximise solar access during the winter months and provide shading and weather protection to indoor and outdoor living spaces.
- Roof forms and rainwater products will be designed and selected to reflect the need to maximise the potential to harvest rainwater on site.
- Roof slopes and orientation will need to provide space for the installation of photovoltaic cells and solar water heating units.
- Roof reflectivity will be managed by restricting the use of colours through their solar reflectance index rating.

3. *Rainwater Harvesting*

Rainwater harvesting will be required for all dwellings. Rainwater tanks must be provided to store rainwater and these tanks can be used as part of the design aesthetics of the development.

4. *Indoor – Outdoor Living Areas*

Dwellings will need to take advantage of the climate of Albany and provide flexible indoor and outdoor living spaces that are sheltered from the prevailing south easterly winds.

5. *Passive Surveillance*

- To assist with the development of community relationships through the subdivision, all new dwellings will have a direct visual connection with the street.
- All dwellings will have a front door that faces the street or access way.
- Windows must be provided from living areas overlooking the street to increase the opportunities for passive surveillance.

6. *Materials*

- Materials throughout the development will be selected to complement the existing materials palette of the region and the sustainable aspirations of the project.
- Materials will be selected to reflect the Albany vernacular. This will be developed further in the Design Guidelines.
- The materials used throughout the development will need to be selected to be appropriate for the harsh coastal environment of Emu Point and sustainability requirements.
- Materials will be used to reduce the visual impact of the development and to reduce the perceived bulk of the buildings.

7. *'Green Points'*

Sustainable features of dwelling design and the appropriate landscaping of gardens will be required and encouraged through an innovative green points system introduced through the design guidelines. A series of mandatory and recommended design requirements are introduced through Design Guidelines at **Appendix 10**. These are allocated a rating and each development is assessed and accorded a score. A minimum score is required of each individual development although mechanisms will be explored to encourage maximum point scores throughout the ODP area.

This tool has the benefit of requiring a minimum standard of sustainable design but allowing the individual landowner some flexibility in which they achieve this. It is anticipated that it will also encourage each landowner to outdo their neighbour to create a positive atmosphere of competition within the ODP area.

The Design Guidelines and Detailed Area Plans (refer to **Appendix 10**) will be adopted as a policy of Council to augment existing controls established through the R-Codes and Council's Residential Design Code Policy.

A two-step approval process will be required, being:

- a. Sign off by a LandCorp approved architect against certain criteria established in the Building Design Guidelines; then
- b. Submission for approval by the City of Albany for assessment against the town planning scheme, planning policies, R-Codes and the adopted Building Design Guidelines.

4.2.1.3 Overview – Public Space/Landscaping

In broad terms, the approach to landscaping POS and road reserves aims to 'grade' development treatments from more urban to more 'bushland' across the site. That is; the proportion of hardscapes & formal planting to naturalistic treatments & softscapes reduces as the residential density of the development decreases. Thus the treatment of the setting for the Village Zone is much more 'urban' than that of the Cluster Homes Zone, which are envisaged to nestle into the bushland as much as possible.

In terms of plant species choice, there will be a preference for indigenous and native species to complement the site's setting, but selected Australian and exotic species will also be used to manage fire risk and allow for solar passive housing design.

Lines for the private gardens will reflect the public landscape character established in the development and will encourage the use of native and indigenous plants, water-wise and fire prevention principles, and solar passive design. While guidelines will acknowledge that not all home-owners will want bush gardens, they will be encouraged to plant gardens that reflect the character of their new home's setting, as private landscapes will be highly visible and will impact on the POS character of the whole site.

The Landscaping Master Plan (refer to **Appendix 13**) comprehensively outlines the manner in which the public spaces throughout the development will be dealt with.

4.2.2 Village Centre Precinct

The Village Centre (located on the main entry to the development and the main access to Middleton Beach) provides an integrated public access point, a focal point for the development, active meeting places and may in the future provide employment opportunities for residents.

A series of three and four storey apartment buildings will front the main entry road into the development and there is potential for commercial land uses on the ground floor with residential units above.

The eastern end of the Village Centre includes a cell of medium density dwellings with a high level of solar access and access to green spaces.

The amount of land available for commercial land uses is limited, so as to not compete directly with Emu Point where there is an existing activity node including restaurant, cafe, fast food and recreation areas.



4.2.2.1 Village Centre - Land Use

Apartment Buildings

A mixture of apartments (multiple dwellings), grouped dwellings and ground floor commercial tenancies is situated within the Village Centre.

Shop, deli, cafe, consulting rooms, day care centres, newsagency and office uses are discretionary land uses on the ground floor facing the main entry road.

The ground floor of the apartment buildings facing the main entry are to be built in an adaptable fashion to enable short term use as residential but easy conversion to commercial premises should demand arise over time. A minimum ceiling height of 3m, disabled access, appropriate window treatments at the front of the building and separation of potential office/residential areas shall allow for the use of the building to change over time.

The permitted density of development within the apartment buildings shall be controlled through a ‘vertical building envelope’ placed on the site within which the number of units provided is at the developer’s discretion subject to meeting the requirements of the Design Guidelines and the R-Codes.

Building to plate height is required prior to further subdivision of the apartment sites.

Terraces

The terraced housing on the same sites as the apartment buildings shall be medium density housing at a R40 density.

Building to plate height is required prior to further subdivision of the terraces to ensure a coordinated product. Some staging of this requirement may be permitted provided the applicant can show how a coordinated result that fully complies with the requirements of the ODP, Residential Design Codes and Design Guidelines can be achieved.



Figure 4.2. Excerpt from Detailed Area Plans for Village Centre Precinct (H+H Architects)

Medium Density Dwellings

The predominant land use for the housing at the eastern end of the Village Centre will be medium density housing at R30 density. These lots are to be 'rear loaded' from a centrally located shared laneway.



Figure 4.3. Medium density housing with good solar orientation in Village Centre & Terraces Precinct (H+H Architects & Malone Design)

4.2.2.2 Village Centre - Built Form

The Village Centre character will be determined by the apartment buildings’ form. These will be three to four storeys, with a maximum wall height of 13m and 15m for the roof, with high density residential units situated along the southern side of the precinct.

Along the northern side of the precinct will be two storey terraced housing.

The multi storey apartment buildings will be the iconic buildings for the whole development and as such will need to be extremely high quality designs. The buildings will be mixed use with commercial on the ground floor and residential above. The ground floor commercial spaces will need to incorporate alfresco areas that take advantage of the Albany climate.

The materials used in the Village Centre precinct will reflect the prominent nature of the lot, and will need to be selected to reduce the visual bulk of the buildings. It is envisaged that due to the commercial nature of the precinct and the potential views from the upper levels that glass will be a prominent material in this precinct.

The roof forms of the multi storey buildings and precincts will be designed to break up the bulk of the buildings and minimise the visual impact.



Figure 4.4 Cross sections of the Apartment and terrace buildings showing the vertical building envelopes (H+H Architects)

4.2.2.3 Village Centre - Public Space/Landscaping

The landscape in this precinct will be more ‘urban’ in character, comprising more formal boulevards, hard paved areas, furniture and built forms (such as low sitting walls) than in other precincts within the development. This reflects higher pedestrian intensity and use levels, and will complement the denser built form character of the precinct.

Landscaping and urban design will also be used to provide pedestrian amenity (shade, detail, comfort), give cues to motorists to moderate speeds, support community interaction and encourage walking/cycling. Car parking areas will also be softened with landscaping to provide shade, reduce reflective heat, assist with stormwater management and visually soften large paved areas.

As this precinct is also at a major gateway to the development, the landscape facing Griffiths Street will be of a high quality.

On-street parking will be provided to support future commercial tenancies on the ground floor of the apartment buildings as depicted on the ODP (refer to Appendix 1).

A community garden is proposed in a centrally located position within the terraces to act as a meeting place and a place for local residents to grow their own food. This is provided to balance the lesser private open space available at the higher densities in this precinct. The Village Centre is also adjacent to a large reserve, further discussed in section 4.4.2.1.

The easternmost medium density units are serviced by a shared laneway designed as a slow speed environment, making through traffic impractical. Narrow, low speed lanes are provided to facilitate rubbish truck egress and fire emergency vehicle access only.



Plate 21 – Public space will be more ‘urban’ in character in the Village Centre

4.2.3 Beach-side Precinct

Medium density housing in this location allows for local residents to be within walking distance of the Village Centre and the beach and to take advantage of the amenity provided by the surrounding POS. The R30 density in this location will support the potential commercial uses within the Village Centre assisting its long term viability.

Providing opportunities for medium density in the Emu Point development helps maintain a reasonable population whilst minimising the development footprint.

Development has been backed onto the existing residential area in order to remove the currently poorly maintained interface with the surrounding bushland, improve fire management and integrate the existing development into the new development.

Landscaped buffers to the existing residential areas have been included within the widened laneways and in development exclusion areas. These buffers will include retention of existing vegetation wherever possible.



4.2.3.1 Beach-side - Land Use

The predominant land use in this precinct will be R30 density residential development, guided by the R-Codes and Building Design Guidelines, which will be formally adopted as a Local Planning Policy under the TPS 1A.

An 8m landscaped rear setback from the rear boundary of dwellings facing north east will be required as shown on the ODP at **Appendix 1**. Retention of existing good quality vegetation and additional planting with trees that will grow higher than 3m within this landscaping strip will be promoted in this precinct.

Uniform fencing at the time of subdivision along the common boundary with the existing residents will be required.

Uniform, permeable fencing and potentially a low retaining wall should be installed where the medium density housing abuts the POS corridor at the time of subdivision to ensure adequate separation of public and private spaces.

No vehicular access is permitted from the existing residential lots to the laneway to retain the landscape strip.

No buildings are permitted within the identified landscaping strip at the rear of the lots facing north east.



Figure 4.5. Medium density housing separated from existing residential area with good solar access, passive surveillance of both the adjacent POS & rear street. (H+H Architects & Malone Design)

4.2.3.2 Beach-side - Built Form

The built form of the beachside precinct will reflect medium density residential development.

The dwellings will generally be two storeys high and situated at the front edge of the lots to maximise surveillance of surrounding public space and reduce building bulk on the existing residential area.

The ‘laneway’ lots will have garaging facing onto the laneway and a requirement for habitable space within the building envelope to provide surveillance of the laneway.

Living rooms and private open space will be orientated to the north to maximise access to northern light, passive surveillance of the POS corridor and further limit the potential for privacy conflicts with the existing residential area.

Buildings backing onto Hope Street will have their private indoor and outdoor living areas orientated to the public open space to provide surveillance of this public space.

The roof forms of the dwellings will be predominantly orientated north south to provide a consistent design aesthetic to the streetscape and will be designed to allow the installation of photovoltaic cells and solar hot water units.

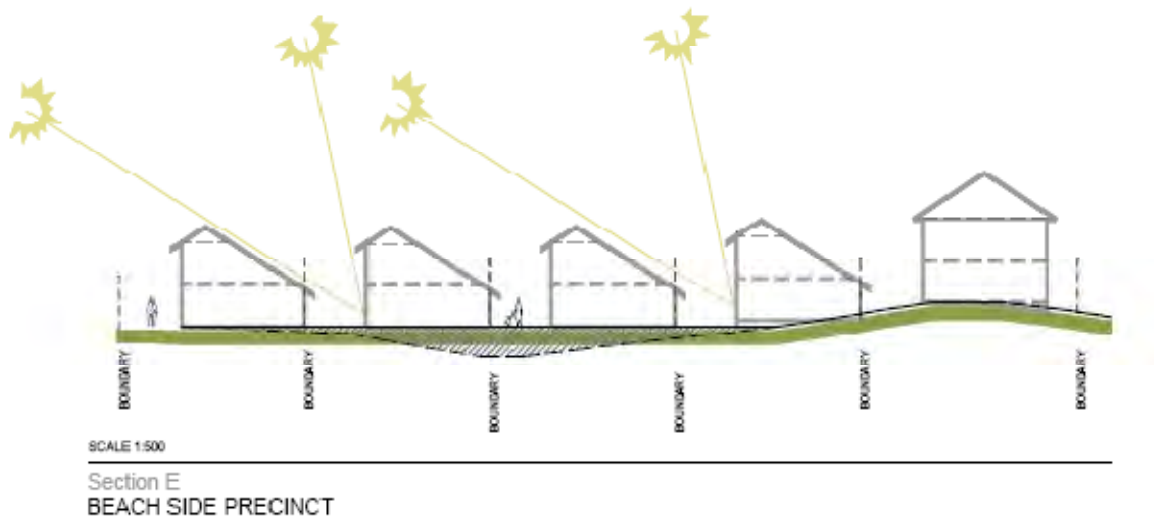


Figure 4.6 - Cross sections of dwellings showing vertical building envelopes ensuring access to northern light. (H+H Architects)

4.2.3.3 Beach-side - Public Space/Landscaping

This precinct is adjacent to an older residential development but also fronts onto bushland and POS so it will need to provide a transition between the new and old communities. The landscape will include formal elements such as street tree avenues as is consistent with residential streetscapes and will utilize species that complement the adjacent bushland so as to soften the edge between housing and POS / reserves.

Landscaping and urban design will encourage slower vehicle speeds and support walkability.

Griffiths Street is extended and connected back into the remainder of the development.

Hope Street is only connected via a trail to retain the privacy and some exclusivity for the existing residents within Hope Street.

A narrow width road reserve separates medium density dwellings facing north toward the Village Centre from the existing residential area. This area is to be landscaped along the rear boundaries of the existing residents using local endemic species. A slow speed environment with on-street parking and limited through traffic is proposed.

A site has been identified as a future lease area for a cafe on the shared path should demand arise. This area is already in a slightly degraded state.

4.2.4 Single House Precinct

Single houses at R20 density are located on the flatter, less densely vegetated portions of the site. This precinct has aspect onto the surrounding reserves and is well linked through a network of walking trails with the surrounding reserves and the Village Centre.

The Albany market is currently dominated by lots between 500m² and 600m². These lots are intended to provide lots to satisfy this market and contribute to the variety in lot sizes throughout the development.

4.2.4.1 Single House - Land Use

The predominant land use will be R20 density residential development, guided by the R-Codes and Design Guidelines, to be formally adopted as a Local Planning Policy under the TPS 1A.

Existing vegetation will be retained wherever possible. A Construction Management Plan (CMP) will be provided with all applications that stipulates what vegetation will be retained as part of the development.

Uniform permeable fencing is required at the time of subdivision where lots face directly onto POS.

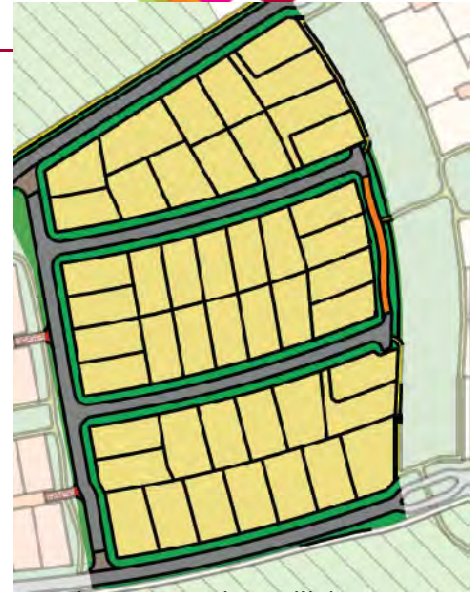


Figure 4.7. Single Houses featuring native, water-wise gardens and good solar orientation at the R20 density in the Single House Precinct (H+H Architects & Malone Design)

4.2.4.2 Single House - Built Form

The R20 density portion of the development should be designed to be a contemporary response to the existing site and coastal nature of the development.

The dwellings will provide a mixture of single and two storey houses. The building envelopes on the lots will be restricted to ensure that sufficient vegetation can be retained.

The dwellings will be designed with the natural fall on the site to minimise the cut and fill requirements. This may require split level designs or framed construction.

The dwellings will have contemporary roof forms, designed to accommodate maximum natural light and ventilation in the buildings, along with controlled solar access to provide passive solar heating when required. The roof forms will require an area of north facing roof to allow the installation of photovoltaic cells and solar water heating units.



Figure 4.8 Cross sections in the Single House precinct showing the space and access to natural light (H+H Architects)

4.2.4.3 Single House – Public Space/Landscaping

The development is set in a wonderful bushland environment and community feedback has indicated that there is a call for a residential character quite different from the usual suburban subdivision which often sells as a bare block dominated by retaining walls and turfed verge. There is an opportunity in this precinct to respond to the site’s topography, and move away from lawn verges to verges planted with low growing native species and street tree avenues that in time will create leafy home addresses with a distinctly Albany coastal character.

In addition, where possible, existing mature trees will be retained and protected during construction so as to build a character of an established residential street and create landscape connections back to the existing bushland. Details such as shared driveways, local colour and material palettes and suggestions for managing weedy species will aim to result in a residential character that respects the surrounding environment and creates a housing choice not available elsewhere in Albany.

Within this precinct, low speed roads are linked by a winding paved laneway to provide increased permeability and rubbish truck servicing. Roads have been aligned with the low points in the landscape to reduce earthworks and assist drainage.

4.2.5 Cluster Housing Precinct

This precinct is characterised by the steeper sloping land, areas of higher quality vegetation and higher fire risk.

The residential lots have been clustered, allowing access ways to be shared, minimising the need for clearing vegetation and reducing the length of road to be constructed.

The clustered lots may be developed as grouped dwelling sites or single houses but in a manner that responds to the topography and retains vegetation.

Access ways have been aligned with the low points in the landscape to minimise earthworks and accommodate drainage requirements.



4.2.5.1 Cluster Housing - Land Use

Single houses and grouped dwellings at the R20 density guided by the R-Codes and Design Guidelines to be formally adopted as a Local Planning Policy under the TPS 1A.

Subdivision or grouped dwelling applications are required to demonstrate how the proposal retains quality natural vegetation and the natural topography of the site.

Existing vegetation is to be retained wherever possible. A Construction Management Plan is to be provided with all applications that stipulates what vegetation is to be retained as part of the development.

A minimum 6.0m front setback (no averaging) to the external road around the eastern edge of the development will be required for fire management purposes in the areas shown on the ODP.

Construction in accordance with the requirement of Australian Standard 3959 will be required on those lots identified on the ODP for fire management purposes.

Uniform permeable fencing is to be provided at the time of subdivision where lots face directly onto POS.



Figure 4.9. Single Houses or grouped dwellings developed to respond to the natural topography with high levels of passive surveillance and water-wise, native gardens in the Cluster Precinct (H+H Architects & Malone Design)

4.2.5.2 Cluster Housing - Built Form

This precinct will consist of one and two storey houses constructed to accommodate the natural falls across the site. Retaining on the sites will be limited to the level permitted by the City’s ‘Sloping Land’ policy and houses will need to be designed as framed construction or split level.

As these houses are surrounded by the natural bush corridors at the eastern end of the site they will need to be designed to be viewed in the round with indoor and outdoor living spaces that take advantage of the adjacent natural bush.

Materials will need to be consistent across each cluster and should reflect the unique position of these houses.

Fencing in the cluster housing precinct will be minimal and should be designed to contribute to the open nature of this section of the development.

The cluster units and the freehold dwellings in this precinct will be designed to be viewed in the round due to the public spaces between and around these dwellings.

Where single lots are developed as part of the subdivision process the specific requirements of a Detailed Area Plans will control development. However, the cluster precinct may be subdivided in such a manner as to create a series of development sites with development potential for 4-6 grouped dwellings. In this case, any grouped dwelling application should clearly describe how the principles espoused in the Design Guidelines have been met rather than prescriptively applying a Detailed Area Plan. This is to allow grouped dwellings to flexibly develop in a manner the responds to the natural topography and retains vegetation.



Plate 22 – Cluster Housing in a natural setting

4.2.5.3 Cluster Housing - Public Space/Landscaping

This precinct has been located in an area of high landscape value and positioned so as to ‘nestle’ into the topography as much as possible. ‘Green spines’ of existing vegetation frame the clusters and will provide habitat, movement corridors and bushland linkages with the surrounding reserves.

The opportunity with the development of these homes in sets of 7 to 9 is to create an almost seamless interface between the private and public landscape, reflecting the importance placed on bushland and habitat in the public spaces of this precinct.

Details such as typical garden set-outs, fencing options and weed management will illustrate the potential for these lots to become ‘eco-clusters’, providing home buyers with a unique opportunity to live in a manageable naturalistic setting within minutes of a regional city. A landscaped activity node set within this precinct will create a destination point along link trails, helping to provide passive surveillance and a meeting place for the new community.

Trails have been provided in the habitat corridors to allow people to move through the development whilst minimising the number of road crossings required.

Existing vegetation will be retained in the ‘bushland corridors’ and supplemented with additional planting at the time of subdivision. Low maintenance design will be promoted in all public spaces as illustrated in the Landscape Master Plan (refer to **Appendix 13**). Alternative mechanisms may need to be established to reduce the long term maintenance costs to the City such as a specified area rate for the ODP area.

4.2.6 Griffiths Street Beachfront

The Griffiths Street beachfront is situated between Ellen Cove and Emu Point and is a natural destination for those either walking the local path network or along the beach.

This area is identified as the area that may be considered for future infrastructure, in consultation with the local community and the City of Albany. The Griffiths Street beach access point is acknowledged in the draft Ellen Cove to Emu Point Foreshore Management Plan as an existing path to the beach.

Griffiths Street has been steadily increasing in popularity as a beach access point for the last decade. It has reached a point now where the parking availability during hot summer weekends is congested. The Emu Point development will bring additional pressures to this parking node and this area may need additional infrastructure in the future.

Additionally, horse use of this access point has been increasing, especially in the last year following the closure of the Albany foreshore area to horses. Trucks and horse floats have started to use the area and horses exercising on the beach has continued. The City of Albany recently created a horse track down the southern edge of Griffiths Street, but local residents have stated that this is not being used.

Proposed Improvements

LandCorp have provided for the redevelopment of the Griffiths Street road reserve as part of the development works associated with the ODP. The following actions are proposed:

- Reducing the Griffiths Street road pavement width to 6.0m;
- Formalising parking bays;
- Modifying materials at the ends of the road to add ‘visual friction’ to slow traffic;
- Separating the shared path from the road and parking bays;
- Improving the existing beach access points to prevent sand blowing back into residential areas during summer easterlies;
- Protecting and retaining the existing native vegetation and dunes; and
- Not intruding any further towards the existing dwellings whilst planting new street trees and bollarding (if desired).

The list above has been provided as the actions required to improve the existing situation in Griffiths Street. These may be implemented in a number of ways, therefore any design and improvements planned for Griffiths Street should be prepared in consultation with the local residents and beach users. An indicative plan is provided below to show one way in which the area could be upgraded (refer to **Figure XX**).

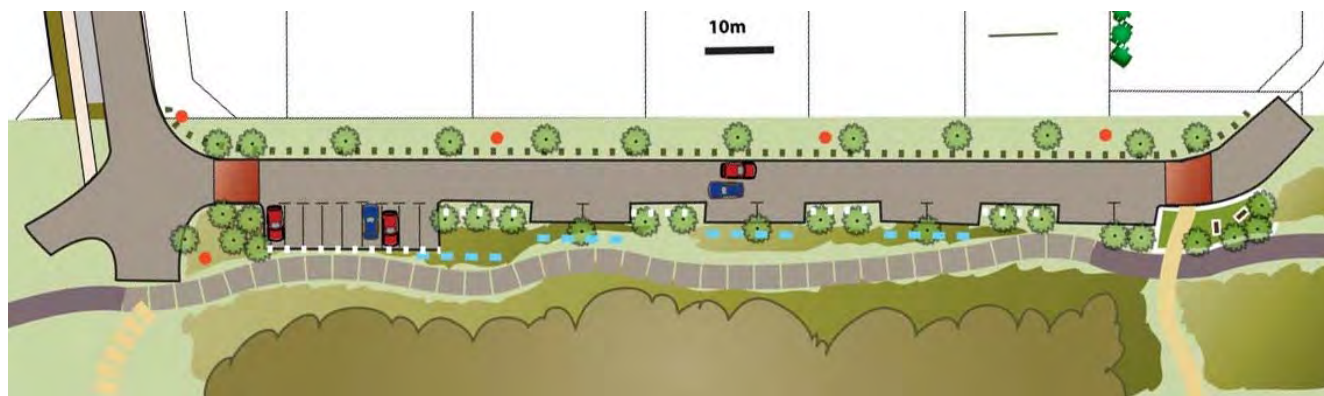


Figure 4.10: Indicative design for the Griffith Street redevelopment.

The area at the eastern end of Griffiths Street has been identified as a potential place for a cafe should demand in this locality be generated at some time in the future. A nominal lease area has been shown to establish this site for alternative uses when the management order is drafted for the reserve in the location.

There are a number of issues that have been identified during the development of the ODP that would remain the City of Albany's responsibility. The City of Albany may need to consider the provision of the following public amenities (consistent with their draft Ellen Cove to Emu Point Foreshore Management Plan) sometime in the future:

- Provision of public toilets, a beach shower, barbeques, picnic tables and even swing sets. Additional, separate horse parking facilities, if horses are to continue to use Griffiths Street beach access; and
- Consider changes to the horse access track located beside Griffiths Street as it is currently not being used.

4.3 Public Open Space (POS)

This ODP proposes to retain approximately 60% of the site as POS. The focus of this development is to reduce the development footprint on the site and this has been achieved by securing large areas of the site for POS. The ODP seeks to achieve a type of development that relates to and is inspired by the surrounding existing bushland setting and natural coastal environment.

4.3.1 Public Open Space Allocation

As identified above, the ODP proposes to retain approximately 60% of the site as POS. This POS will perform different functions as part of the greater development. The greater part of the site will be retained as natural bushland. Several small portions of the POS will provide some active open space opportunities for residents and visitors whilst the ‘bushland corridors’ will retain bushland and serve to provide the setting for sustainable housing and serve a role as a pedestrian access way.

The amount and nature of the POS on the site reinforces the objectives of the development to provide a sustainable development in a bushland and coastal setting. **Table 2** provides a breakdown of the various POS requirements for the whole development.

POS Requirements for the Development	Area	Percentage of Development
Site Area	33.1796ha	100%
‘External’ POS		
Retained Bushland and Reserves	16.7836ha	50.58%
‘Internal’ POS		
Bushland Corridors	2.1336ha	6.43%
Bushland Nodes	0.1019ha	0.31%
Village Centre Park	0.6733ha	2.03%
Hazard Separation Zone	0.6090ha	1.83%
Total ‘Internal’ POS	3.5178ha	10.6%
TOTAL PUBLIC OPEN SPACE	20.3014ha	61.18%
Development footprint 133 residential lots plus roads	12.88ha	38.82%
POS Breakdown		Percentage of POS
Active Open Space	0.7752ha	4%
Hazard Separation Zone (modified landscape)	0.6090ha	3%
Passive Open Space	18.9172ha	93%

Table 3 – POS Schedule

Large areas of retained bushland will be improved through selective revegetation and weed removal to secure a large proportion of the site in its natural state. This retains a large percentage of the quality bushland and habitat on the site. It also sets the tone of the nature of the future development of the site encouraging a residential development in a bushland setting.

Smaller, selected areas of Active Open Space are provided at either end of the development to provide places within acceptable walking distances for the local residents. These spaces are not intended as ovals but could have swing sets, picnic tables and will act as places where the local community can meet.

This balance of Active versus Passive Open Space provides opportunities for the retention of quality bushland whilst enabling future residents to recreate in close proximity of their residence. Large areas of Active Open Space have not been provided as Middleton Beach serves this role.



Figure 4.11: Open Space within and around the ODP

More detailed explanation of each of the individual POS areas are explored in the remainder of this section.

4.3.2 Internal POS Network

4.3.2.1 Village Centre Park.

The Village Centre Park will be bound by the highest density area of the development and will act as a breakout area for residents and their visitors. It will also serve as a potential picnic area, should a café/deli open adjacent. As such it will have a fairly active use level, and be characterised by a mixture of turfed areas under retained trees and managed bushland. The end of the park fronting Griffiths Street will act as a gateway to the community and will need to be of a high visual quality. The Village Centre Park has a low ridge running through its centre and this will be used as a feature and an asset. Park furniture and special elements, such as a look-out tower and play equipment, will also be considered.



The potential for space within this park to be used for environmental and sustainable development education is explored in the Landscape Master Plan.

4.3.2.2 Bushland Nodes

With nearly 60% of the site being retained for open space and most of that as bushland, there is ample Passive Open Space provision within the whole development. However a balance of Active Open Space areas will need to be provided for community interaction and places to recreate.

Two nodes are proposed to support community interaction and provide more formal landscapes at key points in bushland areas.

The first node is central to four Cluster groups at the junction of access trails. This POS is intended as a mini ‘Eco-Park’ with elements such as bush tucker gardens, possum and bird nest boxes, a lookout on the high point (8.5m), resting benches for walkers and community artwork opportunities.



A Node such as this plays an important role in supporting neighbourly interaction, passive surveillance and education on bush care. Additionally, in this section of the development residents are at the limit of a typical ‘ped-shed’ of 400m from the main active POS at Griffiths St, hence a second local POS is recommended.

A second node is provided between the trailheads to the beach. This will accommodate a small turfed area with facilities such as play equipment, park furniture, a tap for washing sandy feet and perhaps community artwork. This node will also act as a ‘bumping zone’ where residents can meet and interact.

4.3.2.3 *Bushland Corridors*

‘Bushland corridors’ have been created within the development for a variety of purposes including:

- Habitat provision;
- Safe pedestrian links;
- Landscaped buffers;
- Service provision;
- Drainage infrastructure (where required); and
- Providing a bushland setting for residential development adjacent.

Retained ‘bushland corridors’ draw the character of the surrounding reserves into the Cluster Home Precinct area and play a role in habitat protection. These corridors will need to be managed for fire, weed invasion and degradation from informal tracks so as to conserve their value as much as possible. Existing vegetation will be protected during house and road construction. The ideal situation will be one where adjacent residents and community take ownership of the management and protection of these areas as key assets for their enjoyment and land values.



The landscaped strip at the rear of the Hope Street residential area will need to be rehabilitated and is provided as a nature corridor and a visual screen.

As they are public spaces, alternative mechanisms may need to be established to reduce the long term costs to the City and ensure adequate maintenance, a ‘Specified Area Rate’ for the ODP area is one mechanism.



Plate 23 – *Bushland Corridors provide a safe pedestrian environment and serve an ecological corridors.*

4.3.2.4 Hazard Separation Zone (HSZ)

The Hazard Separation Zone (HSZ) is a modified landscape provided to manage the fire hazard presented by the adjacent bushland. The HSZ includes the following components:

- Retention of existing larger trees;
- Introducing fire retardant native plants;
- Road-side drainage swales;
- Rock mulching (where necessary); and
- Edging this area with the shared path wherever practical.



The HSZ has been included in a 26m wide road reserve and will be managed into the future as part of this reserve network. Low maintenance species and treatments will be utilised in this area to ensure that the fire management regime required as part of the Fire Management Plan is simple and cost effective to maintain. The Landscaping Master Plan and Fire Management Plan (refer to **Appendix 13** and **Appendix 14** respectively) deal in more detail with the development of the HSZ.

4.3.3 External POS Network

4.3.3.1 Retained Bushland and Reserves

The large area of bushland between the development footprint and the existing foreshore reserve and an area reserved as an ecological corridor along the eastern side of the site are to be retained (as far as practical) in their natural state and reserved for conservation purposes.

A Weed Management Strategy will be devised and implemented as a condition of subdivision that will further improve the quality of vegetation in these reserves.

These areas will be protected during the construction phase and managed as undeveloped bushland (refer to **Section 4.6**). A key element in their protection will be the construction of formal pedestrian access routes to the beachfront to discourage informal trails being pushed through the bush and over fragile foredunes. Look-out towers may be provided at high points near trails if these can be shown to provide ocean views and are of benefit to the community.

Wherever practical, footpaths for beach access will utilise existing cleared trails. Where these trails are not used they are to be revegetated.

An ecological corridor or greenway is proposed along the eastern edge of the site linking the Middleton Beach foreshore reserve with the Boronia Reserve to the north of Emu Point Drive. These ecological corridors are supported by the City of Albany Greenways Plan.

This ecological corridor represents both Peppermint thicket and Sheoak/Banksia woodland vegetation types.

There are two east-west ecological corridors linking the ‘retained bushland’ within the site to the golf driving range:

- In front of the Village Centre that runs along an existing vegetated ridgeline; and
- The existing “Parks and Recreation” area adjacent to Emu Point Drive.

Vegetation will be retained within these ecological corridors wherever possible. The ecological corridor adjacent to Emu Point Drive will be revegetated as part of the Visual Impact Assessment and Landscaping Master Plans (refer to **Appendix 11** and **13** respectively).



4.3.3.2 Middleton Beach

The beach essentially functions as a large active recreation POS and will be a key destination for the majority of residents. As noted in **Section 4.5.1**, provision of carefully located formal pedestrian paths to the beach will be essential for easy access and dunal protection. Structures such as steps and boardwalks at the fore dune may be considered where these will help prevent dunal erosion and provide amenity for beach users (i.e. benches).

Any existing beach access points will be utilised in accordance with the requirements of the draft Ellen Cove to Emu Point Foreshore Management Plan.

4.4 Road Layout

4.4.1 Internal Road Network

The internal road network for the development has been designed to align with topographical features of the site and minimize any potential environmental and landscaping impacts on the site and surrounding area.

All lots within the development will be serviced by sealed roads, with road widths varying from 6 metres wide for the main routes, 5.5m wide for lesser roads, 4.5m wide for cul-de-sac links and 4 m for battleaxe driveways to the cluster lots. Parking bays will be provided at selected locations throughout the development, with particular attention to the higher density areas and public access points.

Due to the relatively low traffic numbers the road hierarchy is restricted to local access ways. The traffic environment created within the development will be generally lower than 40km/hr.

Although all roads are identified as ‘Access Streets’, the development has one main access street running through the middle of the development, connecting Emu Point Drive and Griffiths Street. A number of traffic calming measures are proposed to ensure a slow speed environment throughout the development including on-street parking, round-a-bouts and large median islands.

Another access street runs around the eastern end of the development. The road reserve is 26m wide in this area in order to accommodate the requirements of Planning for Bushfire’s legislation, road-side drainage swales, large median islands and a shared path. A typical cross section for a portion of this road is shown below:

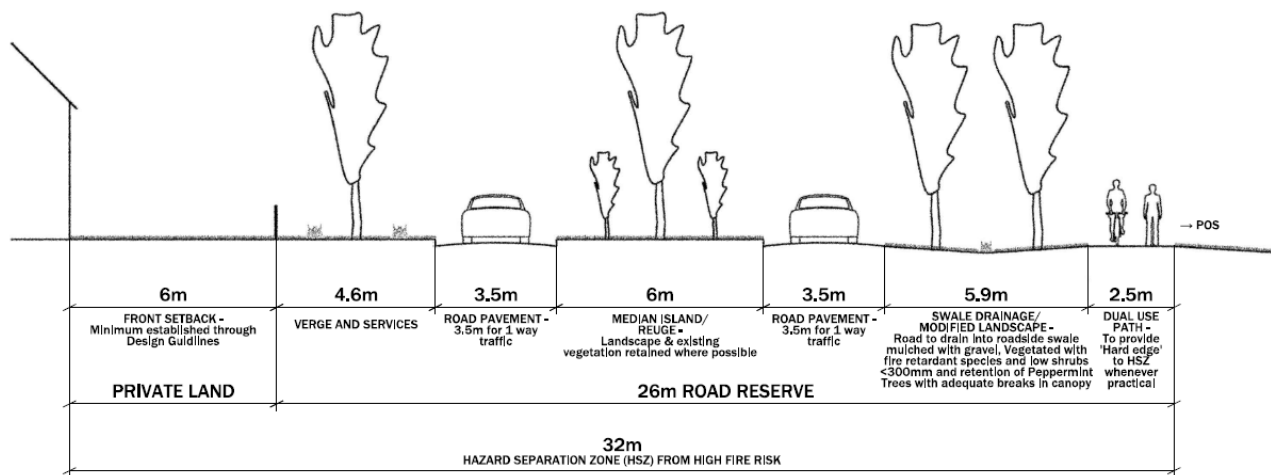


Figure 4.12: Indicative cross section of the access street at the eastern edge of the development footprint.

A narrow 4.5m wide road with flush kerbing adjacent to the existing residential area is proposed. This is considered to be a “Special Purpose Street” by Liveable Neighbourhoods and will be designed to suit its purpose.

This road has been kept narrow to ensure slow traffic speeds, providing just enough space for two cars to pass. The overriding intent is to ensure a wide landscaping strip is established adjacent to the existing residential area. This road has limited on street parking, providing for visitor bays only. The design of this road is to compliment the Design Guidelines and Detailed Area Plan for the adjacent new ‘beach-side’ residential precinct.

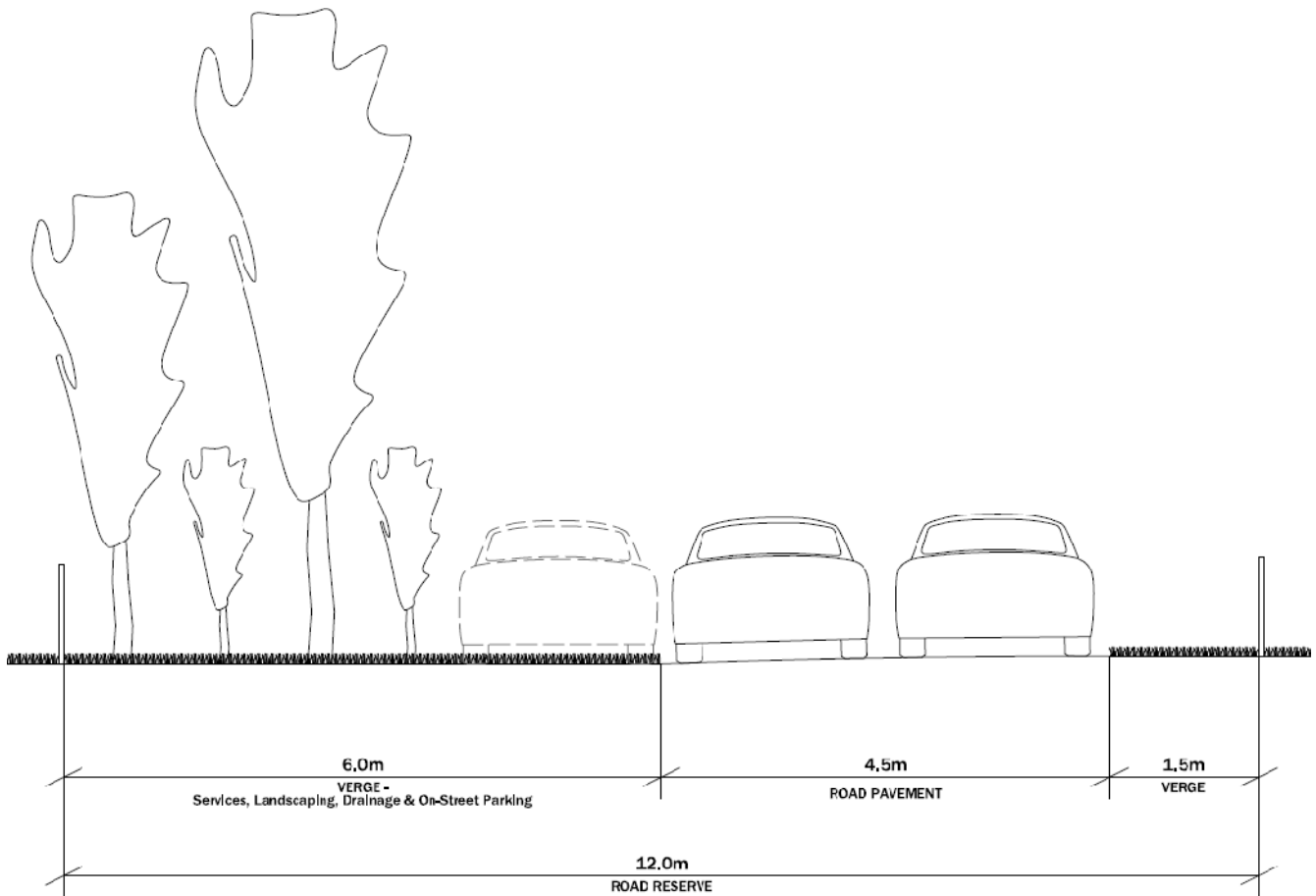


Figure 4.13: Indicative cross section of the one way road backing onto the existing residential area.

All other roads within the development are access streets. Typically there are two types of road reserves. These roads are standard 15m wide road reserves for internal streets and road reserves that are located adjacent to POS. These are of a lesser width to encourage slow speeds and reduce the separation between dwellings and POS for greater passive surveillance opportunities.

Typical road reserve cross sections for these two access streets are shown below:

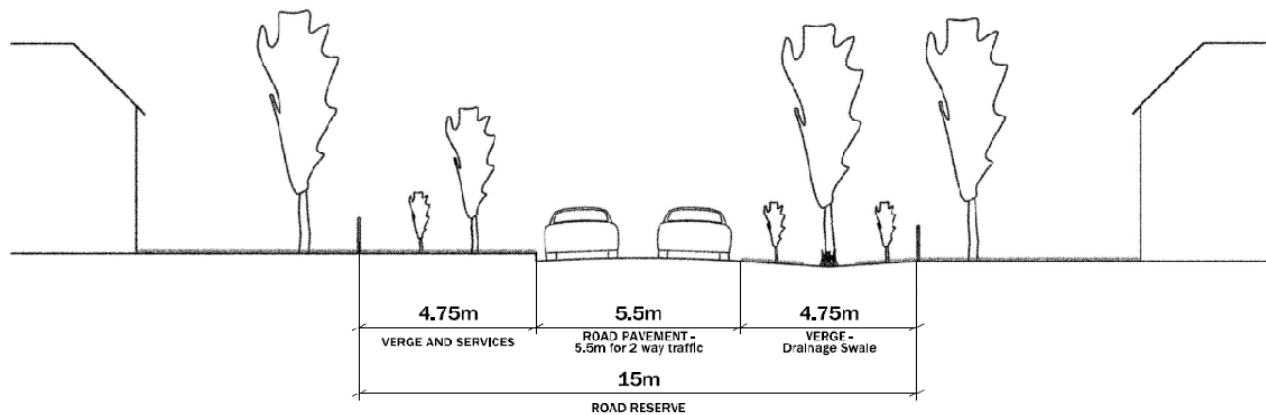


Figure 4.14: Cross section for typical internal 15m road reserve for access streets.

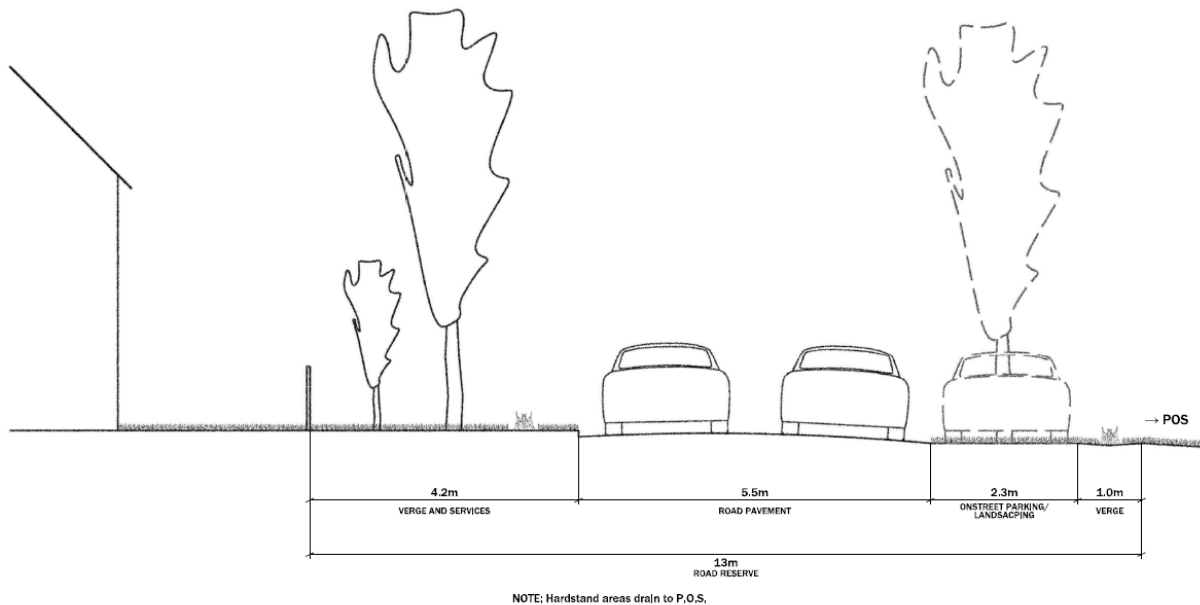


Figure 4.15: Cross section for typical road reserve for access streets facing POS

According to the traffic assessment report (Wood & Grieve 2009), the development itself will not generate any significant internal traffic movements. This is due to the lack of destinations (e.g. shopping areas, recreational area). The close proximity of the beach will also minimise car movements to Griffiths Street and promote walkability within the development area. As such it is expected that there will be little or no change to the traffic volumes in the existing residential area around Hope Street, due to this development.

The speed limit for the internal road network will be designed for a maximum of 50kph, with likely speeds below 40kph.

A detailed traffic assessment has been completed to address all aspect of the traffic generated by the development and a copy of this report is provided in **Appendix 15**.

4.4.2 External Road Network

Traffic counts undertaken along Emu Point Drive (between Griffiths and Troode Streets) in late 2009, indicate that there has been a 3% per annum growth in traffic volume since 2002, with the current vehicle per day (vpd) equating to 2,777 vpd. It is estimated that by 2022 that 3,960 vpd are predicted traffic volumes for Emu Point without the development, as opposed to 5,420 vpd with the development.

The initial traffic assessment acknowledges that the additional traffic volumes generated from the development on Emu Point Drive and surrounding road networks will not necessitate any future upgrading beyond what is already required within the existing Emu Point area.

Future traffic management measures for right turn movements from Emu Point Drive into Griffiths Street and the new development entry will require the accommodation of the following:

- Griffiths Street - Passing bulge with right turn pocket (line marked); and
- New Entry - Passing bulge with no turning pockets.

Although vehicular speed along Emu Point Drive is unlikely to impact on the development itself, the current 80km/hr speed limit should be reviewed with the proposed increase in traffic numbers. There should also be consideration given for the provision of round-a-bouts at the intersections in lieu of the abovementioned traffic management measures.

The first 100m of Griffiths Street may be narrowed or have a median strip introduced to control parking and traffic movements within this area.

4.5 Pedestrian and Cycling Network

The pedestrian and cycle network fits within a larger picture guided by the City of Albany Trails Master Plan. Additionally, the Kinjarling Trail Project is being developed and will incorporate indigenous aspects into trails extending from Upper Kalgan to Goode Beach. The site has potential to be incorporated into this Trail and provide an interactive destination.

The pedestrian and cycling networks double as a landscape tool for buffering the development for fire management purposes and also buffers the bushland from residential gardens for weed control.

4.5.1 Internal Pedestrian Network

The footpath network encourages convenient and safe pedestrian movement with a high degree of separation between vehicles and pedestrians.

The development footprint concentrates residential densities around the Village Centre. 80% of lots within the development area are within the recommended 400m of the Village Centre, far in excess of the Liveable Neighbourhoods recommendation of 60%.

Within the nominal 400m “ped-shed circle” the actual percentage of dwellings with a 400m walkable catchment is 94% (refer to **Figure 4.16**). This percentage is considered a very high level of permeability indicating a high standard of walkability within the overall design.

The cluster lots at the eastern end of the development are outside of the 400m “ped-shed” but are well connected to the Village Centre through a safe and separated network of paths.

The walking trails and footpaths indicated on the ODP are proposed to be a mix of paved footpaths and informal, limestone reinforced trails (as appropriate). The strategic firebreak path heading east of the development is required to be stabilised and accessible via 2 wheel drive vehicles.



Figure 4.16: “Ped-Shed” to Village Centre

4.5.2 Shared Path System

The site is well serviced by the existing shared path system along Middleton Beach linking Ellen Cove and Emu Point and several shared paths linking the site to the north.

The proposed shared paths complete the existing shared path network in this locality providing links for residents to the existing network and providing links through the site for external users.

The proposed shared paths also serve to define the edge of the road reserve system and HSZ required for fire management and conservation purposes.

These paths will be provided at 2.5m wide and will be separated from the road pavement in every instance for safety.



4.5.3 Shared Path & Trail Entry Points and Road Crossing Points

Landscaped median islands have been recommended at junction points to assist pedestrians and cyclists to cross roads and create ‘friction’ on straight road alignments to help moderate vehicle speeds. Planting will be designed to ensure visibility.

The island is to be a minimum of 6m in width in order to contain enough vegetation effectively function as a wildlife refuge.

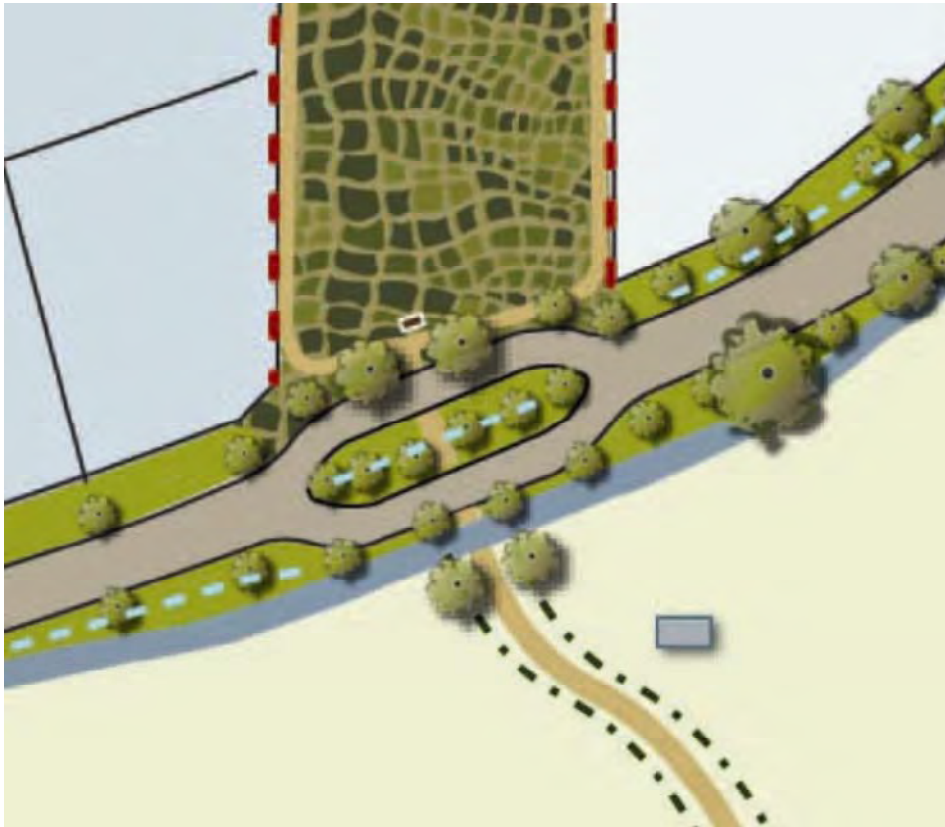


Figure 4.17: An example of a landscaped median island and road crossing

4.6 Environmental Considerations

As detailed in section 2.2 of this document a Public Environmental Review (PER) document has been prepared and lodged with the Environmental Protection Authority (EPA).

A number of the recommendations and actions within the PER will be enforced through the environmental legislation in processes separate to this ODP. However, the major actions and recommendations of the PER are detailed in the following sections where they can be enforced through the ODP or at the subdivision stage of the development.

A summary of the environmental factors and their proposed management is provided in section 10 of the PER documentation “Summary of Environmental Factors and Management”; this is provided at **Appendix 16**.

Note: Many parts of section 4.6 below freely quote the PER documentation in order to maintain consistency between the documents.

4.6.1 Flora Management

The ODP design has incorporated a number of features to retain, enhance and conserve the flora and vegetation on site. The design features include:

- Preservation of fauna corridors that to link the site to surrounding areas of native vegetation;
- The landowner plans to submit a re-zoning application under the TPS 1A to re-zone areas outside of the development footprint on site as ‘Parks and Recreation’. The ownership of this land will be transferred to the local government authority, with a management plan for its long term care. Additionally, it is recommended that once rezoned, the process to identify the land as a “Class A” reservation is commenced. The total area to be reserved for conservation purposes is approximately 25.1 ha. The rezoning, transfer of ownership and the identification of these areas as a ‘Class A’ reserve will facilitate the maintenance of these areas in perpetuity;
- Approximately, 0.48 ha of existing walking path is proposed for rehabilitation with local native species. In addition, approximately, 2.29 ha of native vegetation will be planted and maintained in road verges and islands; and
- Approximately, 0.31 ha of degraded vegetation at the north of the site will be rehabilitated with local native species.

Management and protection of flora and vegetation for the subdivision phase of the development will be addressed through the implementation of a Construction Environmental Management Plan (CEMP). The ongoing management of the site shall be controlled through the implementation of an Environmental Management Plan (EMP). Both the CEMP and the EMP will be required as a condition of subdivision and are provided as part of the proponent's environmental commitments to demonstrate their duty of care to the environment under the Environmental Protection Act.

The following management controls will be incorporated into the CEMP & EMP and implemented to minimise impacts on flora and vegetation:

- Vegetation clearing controls will be developed;
- Clearing will be minimised as far as practicable;
- Conservation significant flora will be avoided where possible. If impact is unavoidable, these plants will be re-established, within revegetation areas of the site;
- Topsoil will be stockpiled and used for rehabilitation (taking into account Dieback hygiene measures);
- Seed collection from the site will be undertaken early in the development process to allow propagation of local plants for use throughout the development area;
- Areas identified for rehabilitation will be revegetated using locally occurring species and will be managed to prevent the spread of weeds and Dieback (refer to **Sections 4.6.5** and **4.6.8**);
- Beach access tracks will be fenced to prevent uncontrolled access to dune areas; and
- The development will be subject to an adequate coastal setback to minimise erosion and disturbance to foreshore and dune vegetation.

4.6.2 Fauna Management

The ODP design has incorporated a number of features to reduce the impact of development on the native fauna. The design features include:

- Fauna corridors will be retained to link the site to surrounding areas of native vegetation. These corridors will provide habitat linkage on a local and regional scale. The site will maintain existing connections to surrounding habitat, facilitate genetic transfer for fauna on site (in particular Western Ringtail Possums (WRPs)) and in general allows for the movement of fauna regionally;
- Approximately 79% of Peppermint Closed Thicket habitat on the site will be retained. This means the majority of habitat that is preferred by Quendas and WRPs is retained;
- Within the development footprint, approximately 3.1 ha will be rehabilitated or landscaped with plant species native to the site. This will include *Banksia* sp. (*Banksia ilicifolia* and *Banksia attenuata*) and *Hakea* sp, the seeds of which are a preferred food for White-tailed Black Cockatoos and Peppermint trees which are preferred by WRPs for dreys and as a food source; and
- The landowner plans to submit a re-zoning application under the TPS 1A to re-zone areas outside of the development footprint on site as 'Parks and Recreation'. The ownership of this land will be transferred to the local government authority, with a management plan for its long term care. Additionally, it is recommended that once rezoned, the process to identify the land as a "Class A" reservation is commenced. The total area to be reserved for conservation purposes is approximately 25.1 ha. The rezoning, transfer of ownership and the identification of these areas as a 'Class A' reserve will facilitate the maintenance of these areas in perpetuity; and

Management and protection of fauna and their habitats for the development proposal will be addressed through the implementation of the CEMP & EMP.

The CEMP & EMP are to provide the following protection and management measures:

- Clearing will be undertaken progressively away from already cleared areas to allow fauna to move away from the area of disturbance;
- A CEMP will be implemented to address potential impacts to habitat including vegetation trampling and weed and Dieback spread;
- A fauna translocation plan will be prepared and implemented as a part of the CEMP;
- Translocations of conservation significant fauna will be monitored to determine the success of the translocations;
- A Western Ringtail Possum Management Plan be prepared and implemented as a part of the CEMP;
- Quenda will be trapped and translocated in the two weeks immediately prior to commencement of clearing;
- Native fauna encountered during clearing will be allowed to make their own way from the site. If this is not possible a zoologist will be used to translocate individuals; and
- Injured fauna encountered by the Contractor will be sent to local animal carers or a local vet.

4.6.3 Coastal Protection

The ODP has been designed to comply with the coastal setback distances recommended by Department of Planning ('DoP'). The development foot print (except beach access tracks) will generally be more than 200m from the 'horizontal setback datum' located on Middleton Beach. The proposed development footprint is 115 m from the development setback calculated by MP Rogers (2007).

Existing beach access tracks will be utilised for the development. Some existing beach access tracks will be made redundant and will be revegetated with local native species. The retained beach access tracks will be:

- Hardened to reduce the potential for erosion; and
- Fenced to encourage the public to use formalised access tracks.

The City of Albany has recently produced a draft Foreshore Management Plan for Middleton Beach and this covers the Foreshore area adjacent to the site. LandCorp have provided input to this plan through the public comment process.

4.6.4 Indigenous Heritage

Subdivision and development will need to ensure that appropriate measures are enforced and undertaken during all phases of the development to minimise any disturbance or impact on the Aboriginal Heritage significance of the site.

4.6.5 Weed Management

Management of weed infestation for the development proposal will be addressed through the implementation of a Weed Management Strategy. Whilst this issue will be addressed by the subdivider for the first three years of each stage of the future subdivision as part of the usual maintenance period, there will be ongoing cost implications for the local government. In recognition of this it is strongly recommended that a Specified Area Rate be applied to the development to assist in facilitating the ongoing weed management of the proposed reserve system.

Subdivision and development shall generally be in accordance with an endorsed Weed Management Strategy by the City of Albany. The key management measures include the following:

- Limiting initial disturbance areas,
- Restricting vehicles to established trafficable areas;
- Undertaking appropriate control spraying using non-residual herbicides; and
- Aggressive weed species, such as Victorian tee-tree, Watsonia, Sydney wattle and kikuyu, will be removed from areas of vegetation to be retained.

4.6.6 Fire Management

A Fire Management Plan (FMP) for the site has been prepared by Opus International Consultants and is included in **Appendix 14**.

The FMP has identified the majority of the site constitutes a low fire risk area. The north eastern portion of the site is identified as a high fire risk area. The low fire risk area includes the coastal fringe area where the topography and proximity of the ocean reduces the fire risk. The high fire risk area is the more densely vegetated area where there is a risk of fire crossing Emu Point Drive from the north.

The proposed ODP has been assessed in the FMP and a number of recommendations are provided in relation to strategic fire access and protection measures as follows:

- Provision of fire hydrants to FESA requirements;
- Strategic fire access to be a minimum of 4m wide with low fuel areas of 10m wide;
- Nominated future houses within close proximity of the high fire risk area to be constructed in accordance with AS 3959-2009; and
- HSZ to be established around the southern and eastern perimeters of the development area. The HSZ will be secured by the following measures:
 - Securing the entire HSZ within private property and road reserve;
 - Design guidelines and ODP provisions requiring a minimum 6m front setback;
 - Design Guidelines and public information controlling the type of planting in the front setback area to suitable spacing and fire retardant species; and
 - Modifying the HSZ road reserve by retaining larger trees, introducing fire retardant native plants, rock mulching where necessary and edging this area with the shared path.

The ODP incorporates the necessary fire management elements to ensure the development meets FESA and City of Albany requirements as shown in **Figure 4.18**.

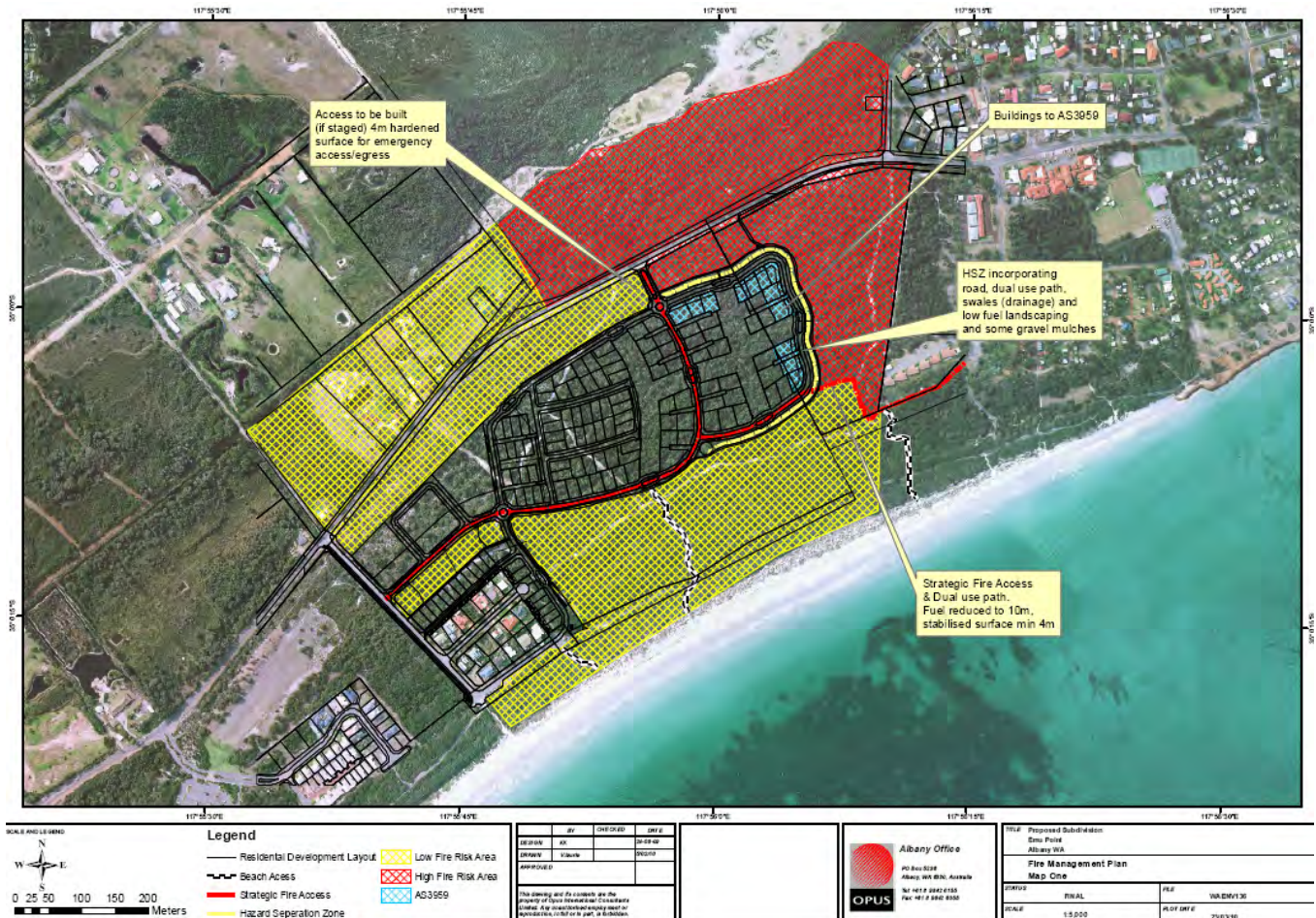


Figure 4.18: Fire Management Plan (OPUS)

4.6.7 Visual Management

Management of visual amenity for the development proposal will be addressed through the implementation of the recommendations from the Visual Impact Assessment (VIA) prepared by GHD and is included in **Appendix 11**.

The VIA identified that the visual quality of existing urban development and built form reveals a landscape cluttered and unremarkable urban form and residential character. This relatively low visual quality urban environment is heavily dependent on the magnificent natural setting for much of its quality, character and amenity.

The quality of the individual developments or structures will not significantly or noticeably impact (positively or negatively) on this wider landscape character, unless exceptionally out of scale, prominent, or by virtue of significant encroachment into the key natural elements that underpins the overall landscape quality.

The aim in developing the new landscape for this site is to ‘nestle’ new buildings and infrastructure into the topography and existing vegetation as much as possible to reduce the visual impact from the beachfront and from within the site.

The appearance of development as seen from a distant or elevated site will be managed through selection of materials and plant species and the retention of vegetation. While tree species that are indigenous to the site (Peppermints, Banksias and Sheoaks) will be used, other non indigenous species may be needed to provide height for visual softening of new buildings.

In addition, solar passive design (with its obvious environmental advantages) may require the judicious use of deciduous species. Given that the development area of the site will be a changed landscape, managed numbers of exotic (non-weedy) species will not greatly alter the visual quality of the residential areas.

The ODP has been assessed in the VIA and the following specific recommendations are provided in regard to managing the visual impact of the development:

- Retention and enhancement of the vegetation cover adjacent to Emu Point Drive should be significantly enriched;
- Landscape treatment around the building envelopes (i.e. immediately adjacent to buildings, within the landscape portion of the development) should focus on high canopy plantings/species as much as possible to screen buildings and walls (of the taller structures) from westerly and northerly vantage points;
- Upper/tall canopy tree species should be selected for use in constructed landscape zones;
- Architectural design of the building structures should seek to soften roof lines, extend roof line eaves as low as possible, using soft textured and coloured walls, create textured building envelopes (e.g. balconies, raised planting beds, etc) and minimize large uniform and brightly coloured surface areas of vertical wall; and
- The development should take maximum advantage of the site topography, positioning buildings in the micro-valley swales as far as possible.

4.6.8 Dieback Management

Management of dieback for the development proposal will be addressed through the implementation of a Dieback Management Plan.

Subdivision and development shall in accordance with an endorsed Dieback Management Plan by the City of Albany and the DEC. The Dieback Management Plan is to address the following management measures:

- Clearing to be undertaken with no interaction between hygiene categories and in dry soil conditions;
- Topsoil from areas free of Dieback will be removed prior to those areas determined to contain the Dieback pathogen (where possible);
- Material removed will be segregated and all Dieback infected material quarantined in a designated location. Stockpiles will be appropriately signed, contained and bunded;
- Raw materials used for roads adjacent to retained protectable areas is to be certified as Dieback free and road drainage is not allowed to be directed to these areas from areas of Dieback infection;
- Raw materials for construction of walkways which traverse protectable areas are to certified Dieback free and of limestone base;
- Dieback hygiene measures will be implemented to ensure all vehicles and equipment are cleaned/washed down prior to mobilising to site and when moving from Dieback infected to Dieback free areas within the site; and
- Any fill material brought to site for the development will be certified Dieback free.

4.7 Services and Infrastructure

4.7.1 Earthworks and Dust Control

4.7.1.1 Earthworks

One of the key objectives of the development is to minimise alterations to the natural landform. However, some earthworks, in the form of cut and fill, will be required for the establishment of roads, some residential lots and services. Specifically, earthworks are likely to include:

- road construction;
- installation of services such as sewer and mains water to minimise excessive trench depths and eliminate low areas along service routes to enable full gravitational servicing;
- development of facilities within POS;
- removal of excessive grades to allow access to and within some lots.

Excavation below the water table is highly unlikely on site for the purposes of landform levelling. Excavation below the water table may be required for the gravity sewer installation along Emu Point Drive, water main installation along Troode Street and sewer connection at the Griffiths Street development.

A plan of the areas that may require alterations to the natural topography are depicted at **Figure 4.19** below.



Figure 4.19: Indicative areas of likely earthworks

4.7.1.2 Dust Control

Construction activities with respect to dust will be carried out in accordance with DEC's guideline on *Land Development Sites and Impacts on Air Quality*. Dust management and mitigation measures will be outlined in the CEMP, which include the following:

- Clearing vegetation in a staged manner to reduce open and exposed areas;
- Water for dust suppression shall be sourced in accordance with licences obtained from the Department of Water (if required);
- Dust generating activities shall not be undertaken during unfavourable weather conditions e.g. high wind speeds, unfavourable wind directions relative to sensitive premises and environments;
- Progressive rehabilitation of areas will be undertaken to reduce the total exposed area;
- Hydro mulch will be provided to exposed areas to stabilise and protect soil (where appropriate);
- Daily inspections will be undertaken during dust prone conditions to visually assess dust generation;
- Residents shall be consulted regarding nuisance dust associated with construction and a complaints register shall be maintained; and
- Appropriate wind fencing will be stored on site or will be available as soon as practicable of being required in the case of nuisance dust event occurring.

4.7.1.3 Acid Sulphate Soil (ASS)

The subject site is not in the area identified in DEC and WAPC mapping as being likely to contain acid sulphate soils (ASS). Preliminary geotechnical studies by Douglas and Partners confirm the lack of ASS. However, excavations in Troode Street required in order to extend services may impact upon areas highly likely to contain ASS.

An ASS investigation will be undertaken along the proposed excavation area along Troode Street to confirm the ASS risk in this area. An ASS and Dewatering Management Plan may be required and once developed it will involve implementation of the following:

- all dewatering proposed in association with the development; and
- any excavation in actual or potential ASS areas.

The ASS Management and Dewatering Plan will prescribe appropriate treatment/and or disposal of ASS materials and abstracted groundwater.

If dewatering is required, LandCorp will make an application to the Department of Water for an abstraction licence in accordance with the *Rights in Water and Irrigation Act 1914*. Any licence conditions set by the Department of Water will be incorporated into a CEMP for the project.

4.7.2 Roadworks and Traffic

Intersections, road and the entrance to the development, will be designed to acceptable standards and will, under normal circumstances, ensure the safety of all road and pedestrian users. Internal and external roads and their associated treatments will be designed in accordance with Local Government standards, or with Australian Standards.

During the construction phases of the development, a construction Traffic Management Plan will be prepared and subsequently implemented to address the following issues:

- Increased airborne dust generation;
- Increased noise generation; and
- Dieback and weed spread.

Management of airborne dust, noise and Dieback and weed spread will need to be monitored carefully to minimise any potential impacts on the environmental quality and the community.

A range of traffic management treatments would be required to minimise any potential impacts on the Emu Point area and the development during the construction and operational phases associated with the development. An indicative plan of these traffic management treatments is provided below at **Figure 4.20**.

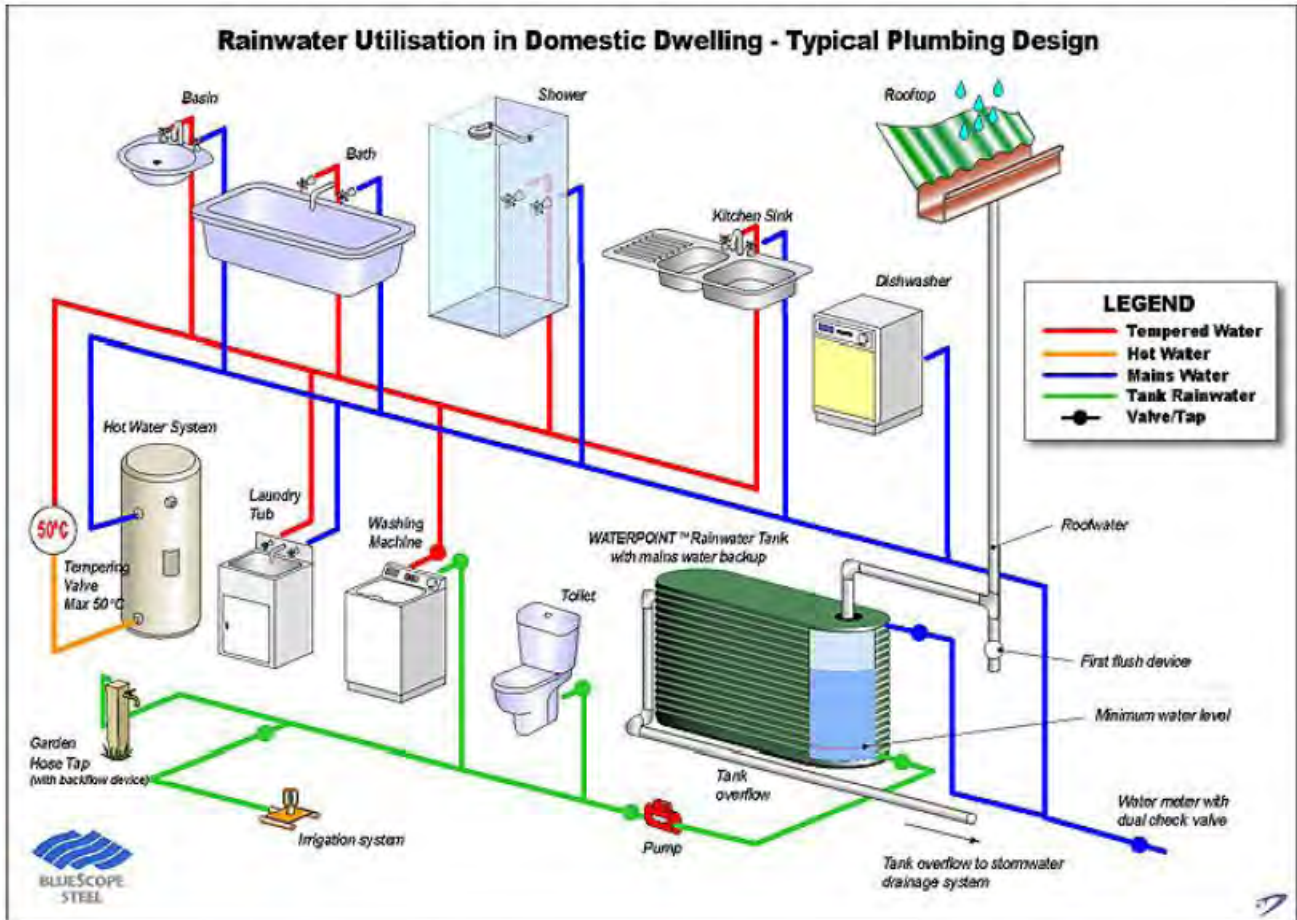


Figure 4.20 – Indicative Plan of traffic management measures to encourage a slow speed environment

4.7.3 Water

The development requires reticulated water infrastructure which will be serviced by a large diameter extension from Collingwood Road, via Troode Street and Emu Point Drive.

According to the Stormwater Management Strategy prepared by Wood & Grieve Engineers (October 2009) (refer to **Appendix 18**), individual households will be required to install and plumb a rainwater tank into the laundry and bathroom. This is supported by the Design Guidelines at **Appendix 10**. This will reduce water consumption and assist with on-site drainage issues.



Example Rainwater Tank System

Figure 4.21 Rain water tanks are to be plumbed into the house

Grey water recycling systems will be encouraged where appropriate and are detailed in the Design Guidelines for the development.

4.7.4 Reticulated Sewerage

The site will be serviced by a reticulated sewer service. This will require the construction of a new gravity sewer line from the Barry Court pump station along Emu Point Drive.

The existing residential properties in Hope and Griffiths Street will also be offered the ability to connect to this service.

4.7.5 Stormwater Drainage

The Stormwater Management Strategy (that forms part of the Local Water Management Strategy at **Appendix 18**) describes the strategy to be implemented to manage stormwater generated at the site, in accordance with best management practice. The Strategy concluded that:

- There are no external catchments which require consideration as the onsite catchments are very small, local and self contained due to the dunal form of the landscape;
- All stormwater will be contained on site and disposed of by ‘at source infiltration’;
- The surface hydrology of the site is likely to remain effectively unchanged post development and unlikely that stormwater modelling would be required; and
- Detailed modelling of rainwater tanks, soakwells and swales will be undertaken during detailed design.

Features of the stormwater drainage design will include:

- A network of shallow verge swales that run the full length of most roads;
- Flood breakout areas and storage areas available in major storm events (if necessary); and
- Rainwater tanks will be used to re-use roof runoff.

A plan of the likely stormwater drainage system and required infrastructure is shown at **Figure 4.22**.

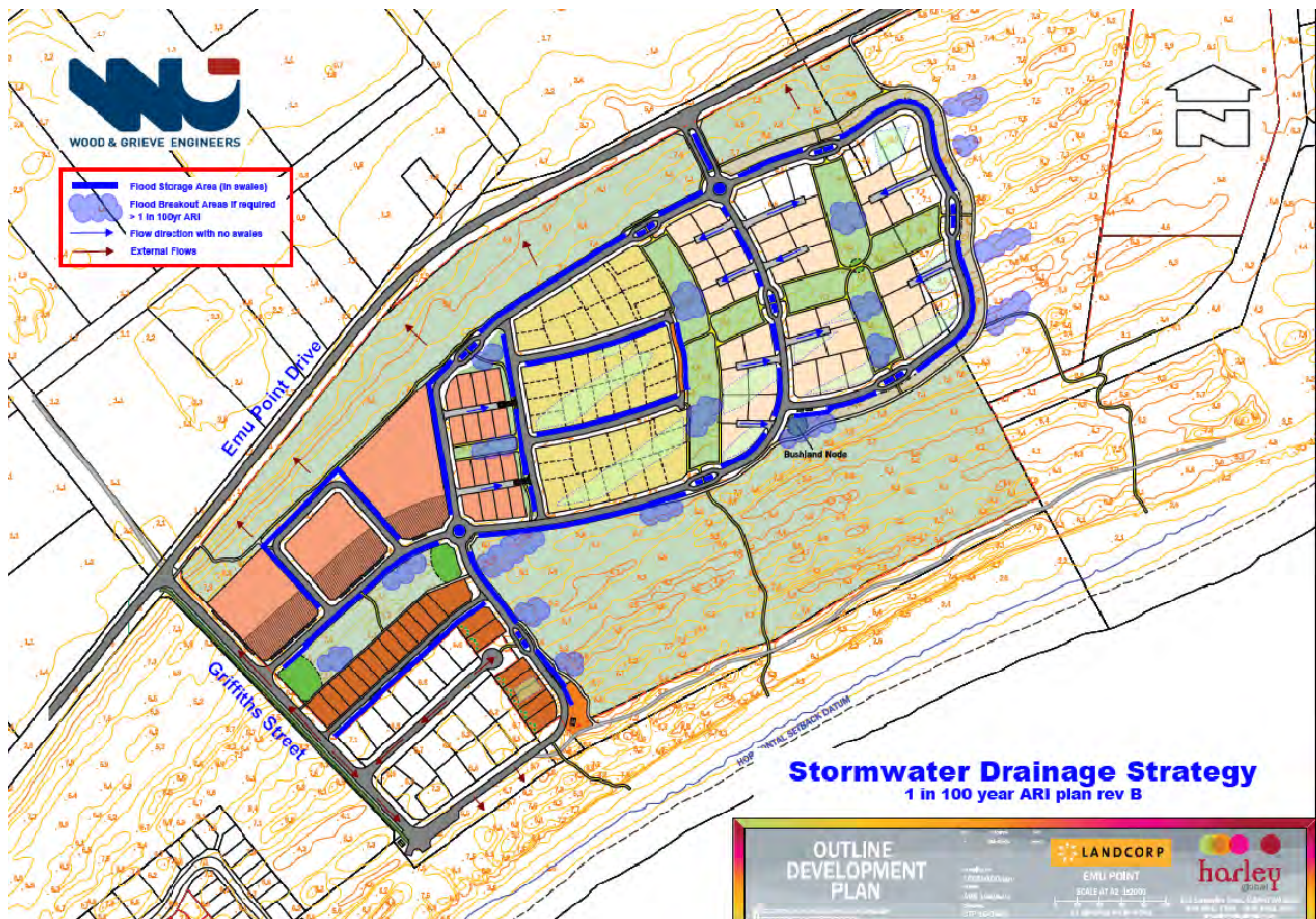


Figure 4.22: Indicative Stormwater Infrastructure Plan

Water Sensitive Urban Design (WSUD) principles and guidelines, consistent with State and local water planning policies have been applied to the development. Residents will be informed how rainwater re-use can be utilised for landscaping purposes.

4.7.5.1 Local Water Management Strategy

The Local Water Management Strategy (LWMS) prepared by GHD, considers on a regional scale, ecologically sustainable approaches to water resources. The development is considered a local scale scheme under the State Government Planning. The LWMS will inform the City of Albany of the proposed resource implications of the development, such that they are able to fulfil their responsibilities under Section 6 of the *State Planning Policy No. 2.9 – Water Resources*. **Appendix 18** provides the LWMS.

It is understood that the Department of Water (DoW) are preparing a Regional Water Plan and it is expected to be completed within six to twelve months (Pers. Comm. DoW, 2009). The Strategy concluded that:

- Water quality results indicate that there is a very low variability in the physical groundwater quality across the site;
- Chemical water quality results may be considered typical or slightly elevated relative to the slightly moderately disturbed ecosystem;
- There are no surface water bodies on the site due to the sandy soil composition and ability to drain well;
- The development proposed will be waterwise, complying with the 5 Star Plus Energy and Water Efficiency Provisions under the Building Code of Australia and the use of 20% less water than reported in the Water Corporation (2003) Domestic Water Use Study;
- The developer is committed to providing landowners with information packs about waterwise behaviour and water efficient technology;
- Estimated annual water demand of the development is 60ML/year;
- Modelling was undertaken for three water supply options including; scheme supply only, rainwater tanks and wastewater treatment facility for water re-use and the most effective method for reducing the demand on scheme water supply than wastewater treatment facility was the use of rainwater tanks; and
- The developer is committed to ensure rainwater tanks are installed on individual properties, but this will be at the expense of the landowner, not the developer.

As identified above, the Stormwater Management Strategy (which is included within the LWMS) acknowledges that detailed modelling of rainwater tanks, soakwells and swales will need to be undertaken at the detailed design stage, without the need for stormwater modelling.

The Groundwater Management Strategy has been instigated as part of the LWMS, to assist with the preparation of the Urban Water Management Plan (UWMP), which has been based on the preliminary groundwater monitoring undertaken by Douglas Partners in October 2006.

This Strategy's main focal point is that no groundwater extraction shall occur at the site to prevent salt water intrusion into the aquifer and to ensure that the CEMP and water monitoring program for construction and post development be developed as additional groundwater management tools is implemented. The UWMP will be informed by monthly groundwater level and quarterly groundwater quality monitoring data collected over the next 12 – 18 months.

The UWMP is part of the detailed design phase of the project and it will be prepared to be consistent with the designs and strategies proposed in the LWMS (concept stage), including but not necessarily limited to the following:

- Details the design proposed in the LWMS and compliance with the objectives;
- Documents the results from annual groundwater monitoring program;
- Details the stormwater management design; and
- Details the specific structural and non-structural methods to be implemented.

It is envisaged that the UWMP will be completed in late 2010.

4.7.6 Public Utilities

The development will be serviced from the existing high voltage aerial cables in Emu Point Drive. New transformers and switch gear will be required throughout the whole development.

Alinta Gas has advised that no capacity exists in the town gas system for additional load of the size of the Emu Point development. To supply gas to the development a standalone system would be required.

4.7.7 Fencing

In comparison to standard residential development pattern, the ODP has a high number of residential lots that back directly onto POS. Dwellings on these lots will be required to provide visual surveillance of these areas and uniform, low, permeable fencing will be provided at the time of subdivision to ensure passive surveillance of these spaces. This will enable the delineation of private and public space and allow natural bushland gardens to move freely through the fence. Gates to adjacent bush corridors will be provided to allow access to the spaces and manage desire lines.

Shared paths and trails that move through the surrounding bushland reserves will be contained by a rural style permeable fencing that allows the free movement of fauna but also controls and limits access by people. More details on fencing are provided in the Landscape Master Plan.

Boundaries between residential lots may be fenced to the standard 1.8m high with materials to be provided in accordance with the Design Guidelines.

Shared Paths and beach access trails will be fenced to prevent shortcuts through the protected bushland.



Plates 24 & 25 – Open style rural fencing will be utilised throughout the development.

4.8 Community Infrastructure and Facilities

The Emu Point residential development and the resultant additional population that it will bring to this area will bring additional pressures to bear on the existing public infrastructure. In recognition of this, the following improvements to the existing community infrastructure are proposed as part of the ODP:

- A new deli/cafe, parks and modern facilities within walking distance of the existing residential area;
- Introduction of a community notice board to encourage the sharing of resources and provide another form of communication for existing and future residents. Management and maintenance of this facility will be arranged at the subdivision stage of development;
- New street trees within the road verges will be offered to those landowners who wish to participate;
- Slowing traffic and providing a turning pocket near the Emu Point Drive/Griffith Street intersection will improve road safety;
- A reticulated sewerage service will be provided;
- Improvements to the interconnectivity of the regional shared path system;
- Improved bushfire management of the adjacent bushland; and
- A redesigned and redeveloped parking and shared path in Griffiths Street to work through any parking and access issues.

The area at the eastern end of Griffiths Street has been identified as a potential place for a cafe should demand for this use in this locality be generated in the near future. A nominal lease area has been shown to establish this site for alternative uses when the management order is drafted for the reserve in the location.

LandCorp have provided for the redevelopment of the Griffiths Street road reserve as part of the development works associated with the development.

4.9 Employment Considerations

In keeping with sustainability principles of creating a walkable residential area and reduction of car use it is important to encourage local sources of employment wherever possible.

Given the small population envisioned and the desire to not compete directly with the Emu Point activity centre, the range of commercial land uses developed in the Emu Point ODP area are likely to be limited to a deli, cafe, newsagent, consulting rooms, day care centre or small specialty shops that should be located in the Village Centre as part of the mixed use development to support the local residents.

Home business or home occupations encourage local employment with little effect on residential amenity. These are discretionary land uses in the *Residential* zone and remain so for this ODP.

4.10 Education Considerations

When fully developed the Emu Point development is likely to generate approximately 650 additional residents. This will not generate sufficient demand for an additional school in this area, particularly given the existing demographic in the Emu Point locality.

The site falls within the Spencer Park school zone for Primary School and the Albany Senior High School zone for high school. There is currently a school bus that services Emu Point that will service the site.

5.0 IMPLEMENTATION

5.1 Subdivision and Development

Prior to subdivision it may be necessary to provide further details to accurately assess the impact of the development on the bushland and coastal environment, these may include:

- Hydrological Survey to determine estimated maximum and existing groundwater levels and areas subject to inundation to be included within the UWMP;
- Urban Water Management Plan (UWMP);
- Weed Management Strategy;
- Acid Sulphate Soil Investigation and Management Plan;
- Dieback Management Strategy;
- Construction Traffic Management Plan
- Construction Environmental Management Plan (CEMP) and Environmental Management Plan – detailed in the PER and throughout the ODP. As stated in the PER:

“The CEMP and EMP (Environmental Management Plan) will contain environmental management objectives and targets that are achievable, measurable and auditable and will have a focus on continual improvement. The proposed CEMP and EMP will document the following key information required for the environmental management of the project:

- » *statutory and legislative requirements;*
- » *environmental objective and targets;*
- » *roles and responsibilities;*
- » *training and awareness program;*
- » *documentation requirements and document control procedures;*
- » *emergency preparedness and response procedures for certain situations covered by the CEMP;*
- » *non-conformity, corrective action and preventative action procedures*
- » *internal and external audit requirements;*
- » *communication plans; and*
- » *environmental management review requirements.”*
- Construction Management Plan provided by the builder with the building licence prior to development of individual sites as it may be necessary to provide more detail as to how the site will be controlled during the construction phase of buildings.

The statutory provisions included in the ODP will ensure the preparation of the above occurs prior to an application for subdivision or development being lodged with the City of Albany and Western Australian Planning Commission.

It should be recognised that the majority of these tasks have been completed or are currently being addressed as part of this ODP.

It is envisaged that staging of subdivision and development will commence as follows:

- Village Centre and associated open space;
- Single House Precinct and associated open space;
- Medium density residential precincts and associated open space;
- Public Open Space areas including ecological corridors and bushland reserves; and
- Clustered Housing Precinct and associated open space.



5.2 Developer Contributions

In accordance with State *Planning Policy No. 3.6 – Development Contributions for Infrastructure* and *Planning Bulletin No. 18 – Developer Contributions for Infrastructure*, subject to the City of Albany preparing a Local Planning Policy, or providing guidance to the developer on the actual infrastructure commitments both community and public infrastructure, the developer shall contribute the standard infrastructure associated with this development (refer to in **Section 4.0**).

6.0 CONCLUSION

Outline Development Plan 007 has been prepared to guide the sustainable development of Lots 3000 & 1523 Emu Point Drive, Collingwood Park.

The ODP has been prepared in accordance with the requirements of the TPS1A and Liveable Neighbourhoods; drawing on *New Urbanist* and sustainability principles to provide the framework to guide and control the future subdivision and development of the site.

The ODP has incorporated many of the principles and objectives of Liveable Neighbourhoods and the R-Codes. Key design elements of the ODP include the provision of a range of lot sizes, a permeable street pattern, a highly interconnected pedestrian and cycle network, accessible areas of passive and active open space and the ceding of large areas dedicated to the preservation and conservation of flora and fauna.

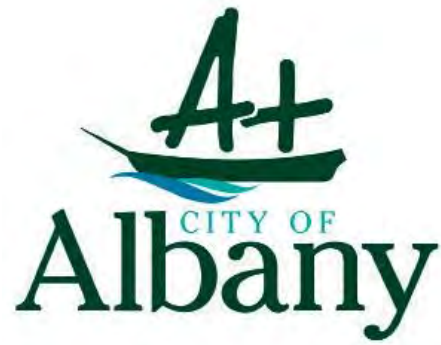
The overall design responds to the site's opportunities and constraints including a subdivision pattern that is sympathetic to the natural topography, respects the coastal setbacks and achieves a balance between fire management and the retention of large areas of high quality bushland.

The ODP includes and is supported by the provision of Design Guidelines, Landscape Master Plan, Fire Management Plan, Visual Impact Assessment, Local Water Management Strategy and a variety of environmental assessments including flora, fauna, dieback and coastal processes assessments. Features of the ODP include:

- A Village Centre to provide a focus and meeting place for the surrounding residential area and passing traffic;
- A range of residential lot types to accommodate apartment, townhouses, strata cluster dwellings and detached housing;
- Retention, enhancement and protection of approximately 60% of the site's vegetation;
- A focus on sustainable development and a reduction in the usual ecological footprint of the development;
- Vegetated corridors connecting the site to habitat areas to the north, south, east and west of the site; and
- Respect for the natural topography of the site.

The ODP is guided by a project-specific sustainability framework, with a view to achieving a sustainable development for the Albany community. Within the context of this framework, the ODP has been developed with input from public consultation and numerous technical investigations.

Approval of this ODP is respectfully requested from the City of Albany and the WAPC.



Local Planning Scheme No. 1
Amendment No. 13
First Omnibus Amendment

Planning &
Development Services

Document Approval			
Document Development Officer: Craig McMurtrie		Document Owner: <i>Dale Putland</i>	
Planning Officer		Executive Director Planning and Development Services	
Document Control			
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Synergy Reference Number:			
Meta Data: Key Search Terms	Local Planning; All; Whole; Scheme Amendment		
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0.1	Planning Officer	User version number 0.1, 0.2 during draft phase of document development.	19/01/2015
1.0	Position Title	User version numbering 1.0 when adopted or approved. Example descriptions: <i>Adopted by Council on 26/11/2014 Report Item ED005.</i> <i>Approved by Executive on 11/11/2014.</i>	dd/mm/20yy
1.1	Position Title	User version numbering 1.1, 1.2 for minor administrative changes. For example: <i>Minor administrative amendments: formatting, table of contents update, document control page, position title changes.</i>	dd/mm/20yy

**CITY OF ALBANY
LOCAL PLANNING SCHEME NO. 1
AMENDMENT NO. 13
CONTENTS**

- 1. RESOLUTION**
- 2. SCHEME AMENDMENT REPORT**
- 3. ADOPTION**
- 4. APPENDIX 1**

PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME
CITY OF ALBANY
LOCAL PLANNING SCHEME NO. 1
AMENDMENT NO. 13

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

Altering various parts of the Scheme Text to correct identified anomalies and errors; improve the functionality of some clauses, sub-clauses and provisions; and to bring about greater consistency with model provisions; and

Altering various parts of the Scheme Maps to correct identified anomalies and errors, and to rezone some portions of land to reflect recent changes in cadastral boundaries and associated land use.

Dated this _____ day of _____ 2015

CHIEF EXECUTIVE OFFICER

CITY OF ALBANY
TOWN PLANNING SCHEME No. 1
AMENDMENT No. 13
SCHEME AMENDMENT REPORT

1. Introduction

This amendment seeks to alter various parts of the Local Planning Scheme No. 1 text to correct identified anomalies and errors; improve the functionality of some clauses, sub-clauses and provisions; and to bring about greater consistency with model provisions. It also seeks to alter various parts of the Scheme Maps to correct identified anomalies and errors, and to rezone some portions of land to reflect recent changes in cadastral boundaries and associated land use.

2. Background

Since its gazettal on 28 April 2014, various errors and anomalies have been documented in Local Planning Scheme No. 1. While many of these are simple typographical errors, some have more significant implications, such as land use classes missing from particular zones, inconsistencies in fire management provisions, or zoning changes that have reduced development potential for some landowners.

3. Proposal

It is proposed to make the following alterations to the Scheme for the reasons outlined. Each part corresponds to the individual part of the amending text.

Proposed alterations to the Scheme Text:

1. Replacement of "ADVERTISEMENTS" with 'ADVERTISEMENTS' in Part 11 of the Table of Contents to correct a typographical error.
2. Insertion of a new section in the Table of Contents after the section headed "SCHEDULES" to read as follows:

'TABLES

Table 1 – Zoning Table

Table 2 – Floorspace Limits for Neighbourhood Centres

Table 3 – Floorspace Limits for Local Centres

Table 4 – R1 Density Code Provisions

Table 5 – Car and Bicycle Parking Requirements

Table 6 – Construction Standards for Car Parking Bays

Table 7 – Site Requirements

Table 8 – Landscaping Requirements'

This section is being added to improve the user friendliness of the scheme and will incorporate page numbers once these are finalised.

3. Replacement of “developed for the desirable ultimate long term use” with ‘fully-serviced urban development’ in Clause 4.2.3(a) for clarity and to improve the wording of the Scheme.

4. Replacement of “X” with ‘D’ in Table 1: Zoning Table to allow ‘Animal Establishment’ to be considered in the Priority Agriculture zone.

It has been found that the omission of ‘Animal Establishment’ from the Priority Agriculture zone would preclude certain types of land use, such as the breeding of working dogs. It is proposed to introduce the use class into the zone for this reason.

5. Replacement of “D” with ‘X’ in Table 1: Zoning Table to exclude the ‘Bed and Breakfast/Farmstay’ use in the Hotel/Motel zone.

This land use class has been included in error and cannot be supported in the zone, as a ‘Single House’ is a prohibited use and a Bed and Breakfast/Farmstay is defined as “*a dwelling, used by a resident of the dwelling, to provide accommodation for no more than six guests away from their normal place of residence on a short-term commercial basis within the dwelling and may include the provision of meals*”.

6. Replacement of “X” with ‘A’ in Table 1: Zoning Table to allow ‘Exhibition Centre’ to be considered in the General Agriculture and Priority Agriculture zones.

The City wishes to foster agricultural diversification and economic development by allowing tourist-orientated developments in the rural hinterland around Albany. The ‘Exhibition Centre’ land use, which includes art galleries and museums, is currently prohibited by the Local Planning Scheme. It is proposed to introduce it as a use that may be considered, subject to public advertising. In order to guide the development of such uses, the City also proposes to draft a Local Planning Policy, with the intention of having it adopted prior to the finalisation of this amendment. This policy will set objectives for such developments and put in place a number of provisions against which they will be assessed. These will include but not be limited to:

- Relationship to agriculture/primary production;
- Location;
- Visual impact/amenity;
- Roads/access;
- Parking requirements; and
- Fire protection.

7. Insertion of a new row between “Holiday Accommodation” and “Home Business” in Table 1: Zoning Table, with ‘Holiday House’ in the Land Use column; a ‘P’ in the Tourist Residential zone; a ‘D’ in the Residential, Regional Centre, Rural Small Holding and Rural Village zones; an ‘A’ in the Yakamia Creek, Regional Centre Mixed Use, General Agriculture and Priority Agriculture zones; and an ‘X’ in all other zones.

It has been determined that ‘Holiday House’ is a more appropriate designation for the use of a Single House for short-stay accommodation than “Holiday Accommodation” and should therefore be included in the Scheme. ‘Holiday House’ is also consistent with the proposed *Planning and Development (Local Planning Schemes) Regulations 2014*.

8. Insertion of 'see note 3' after the "Grouped Dwelling" use in Table 1: Zoning Table and insertion of an additional note at the end of the "Table Notes" at the bottom of the Zoning Table as follows:

³ Grouped dwellings will require the planning approval of the Local Government on land zoned General Agriculture or Priority Agriculture subject to clause 5.5.16.1 of the Scheme.'

This note is to be added to the Scheme as a component of reintroducing the use class 'Grouped Dwelling' into the General Agriculture and Priority Agriculture zones; a potential development right that existed in former *Town Planning Scheme No. 3*. It is necessary to ensure that the use class is cross-referenced with clause 5.5.16.1 which sets out the requirement for a lot to be equal to, or in excess of 20 hectares in area before a second dwelling may be approved on land zoned General Agriculture or Priority Agriculture.

9. Replacement of "X" with 'D' in Table 1: Zoning Table to allow 'Grouped Dwelling' to be considered in the General Agriculture and Priority Agriculture zones.

As described above, the provision to construct a second 'Grouped Dwelling' in the General Agriculture and Priority Agriculture zones was a potential development right that existed in former *Town Planning Scheme No. 3*.

Although staff at the Department of Planning Great Southern Regional Office have indicated that they do not consider 'Grouped Dwelling' an appropriate descriptor for a second dwelling on General Agriculture or Priority Agriculture zoned land, clause 4.4.1 of the Scheme states that "*Where a specific land use is mentioned in the Zoning Table, it is deemed to be excluded from the general terms used to describe any other use.*"

Furthermore, clause 4.4.2 of the Scheme states that "*If a person proposes to carry out on land any use that is not specifically listed in the Zoning Table and **cannot reasonably be determined as falling within the type, class or genus of activity of any other use category**, the Local Government may:*

- (a) *Determine that the use is consistent with the objectives of the particular zone and is therefore permitted;*
- (b) *Determine that the use may be consistent with the objectives of the particular zone and thereafter follow the advertising procedures of clause 9.4 in considering an application for planning approval; or*
- (c) *Determine that the use is not consistent with the objectives of the particular zone and is therefore not permitted."*

The City of Albany would hold that a second dwelling on a lot zoned General Agriculture or Priority Agriculture would be consistent with the definition given to 'Grouped Dwellings' in the Residential Design Codes of WA and referenced in Schedule 1, Part 2 – Land Use Definitions within the Scheme.

10. Replacement of "D" with 'X' in Table 1: Zoning Table to exclude the 'Multiple Dwelling' use in the Caravan and Camping zone.

This land use class has been included in error and is at odds with objective 4.2.6(c) of the zone, which is to:

"Prevent the conversion of the land to permanent structures and permanent residential occupation except where the land or part of the land is approved for Park Home park development."

11. Replacement of “X” with ‘A’ in Table 1: Zoning Table to allow the consideration of ‘Place of Worship’ in the Light Industry and Local Centre zones.

It has been recognised that ‘Place of Worship’ could have been considered in these zones in former *Town Planning Scheme No. 1A* and it is proposed to restore these potential development rights.

12. Replacement of “X” with ‘A’ in Table 1: Zoning Table to allow ‘Reception Centre’ to be considered in the General Agriculture and Priority Agriculture zones.

The City wishes to foster agricultural diversification and economic development by allowing tourist-orientated developments in the rural hinterland around Albany. The ‘Reception Centre’ land use is currently prohibited by the Local Planning Scheme. It is proposed to introduce it as a use that may be considered, subject to public advertising. In order to guide the development of such uses, the City also proposes to draft a Local Planning Policy, as outlined in proposed alteration 6 above.

13. Replacement of “X” with ‘A’ in Table 1: Zoning Table to allow ‘Residential Building’ to be considered in the Regional Centre Mixed Use zone.

The Regional Centre Mixed Use zone is intended to “provide and promote the co-location and integration of land use activities such as residential, offices, administrative and government services within the zone.” As these will be areas of high-amenity inner city development, the City considers that they would be appropriate for the location of Residential Buildings.

14. Replacement of “X” with ‘A’ in Table 1: Zoning Table to allow ‘Restaurant’ to be considered in the General Agriculture and Priority Agriculture zones

The City wishes to foster agricultural diversification and economic development by allowing tourist-orientated developments in the rural hinterland around Albany. The ‘Restaurant’ land use is currently prohibited by the Local Planning Scheme. It is proposed to introduce it as a use that may be considered, subject to public advertising. In order to guide the development of such uses, the City also proposes to draft a Local Planning Policy, concurrently with this amendment, as outlined in proposed alteration 6 above.

15. Insertion of a new row between “Single House” and “Storage” in Table 1: Zoning Table, with ‘Small Bar’ in the Land Use column; a ‘D’ in the Regional Centre and Regional Centre Mixed Use zones; an ‘A’ in the Tourist Residential, Hotel/Motel, Clubs & Institutions, Neighbourhood Centre, Local Centre, General Agriculture and Priority Agriculture zones; and an ‘X’ in all other zones.

The use of the Small Bar licence class is becoming ever more prevalent and is more suited to areas where traditional licensed venues such as Hotels and Taverns may have adverse impacts on amenity. The inclusion of a ‘Small Bar’ use is also consistent with the proposed *Planning and Development (Local Planning Schemes) Regulations 2014*.

16. Replacement of “X” with ‘A’ in Table 1: Zoning Table to allow ‘Tavern’ to be considered in the General Agriculture and Priority Agriculture zones

The City wishes to foster agricultural diversification and economic development by allowing tourist-orientated developments in the rural hinterland around Albany. The ‘Tavern’ land use is currently prohibited by the Local Planning Scheme. It is proposed

to introduce it as a use that may be considered, subject to public advertising. In order to guide the development of such uses, the City also proposes to draft a Local Planning Policy, as outlined in proposed alteration 6 above.

17. Replacement of

“The Local Government’s objectives in implementing fire protection and bush fire control measures are to:

- a) Identify areas within the City where bush fires pose a threat to life and property;
- b) Require that all land use and development proposals incorporate appropriate fire protection requirements; and
- c) Implement the relevant Western Australian Planning Commission Bushfire Protection policies and guidance.”

with

‘The Local Government’s objectives in implementing fire protection and bush fire control measures are to:

- a) Identify areas within the City where bush fires pose a threat to life and property;
- b) Where bush fire risk is moderate, require that all land use and development proposals incorporate appropriate fire protection requirements;
- c) Implement the relevant Western Australian Planning Commission Bushfire Protection policies and guidance;
- d) Prevent development in areas of extreme bushfire risk, unless that development is unavoidable; and
- e) Limit clearing of native vegetation where it would be necessary to manage or reduce bushfire risk.’

in clause 5.4.1.1, as requested by the Office of the Minister for Planning, for consistency with the equivalent provisions in the *Shire of Mundaring Local Planning Scheme No. 4*.

18. Renumbering existing clauses 5.5.3.1 and 5.5.3.2 as 5.5.3.2 and 5.5.3.3 respectively and the insertion new clause 5.5.3.1, to read as follows:

‘Subject to clause 5.5.3.2, any lot within the Future Urban zone shall not be developed, used or subdivided, other than in accordance with a Structure Plan adopted under clause 5.9.1.5 of the Scheme.’

It has been determined that the above clause should be included in the Scheme to prohibit subdivision of Future Urban zoned land until an appropriate Structure Plan is adopted.

19. Replacement of “Shopping Centre Name” with ‘Locality’; “Albany Centro” with ‘Lange (Brooks Garden)’; and “North Road” with ‘Yakamia (North Road)’ in the first column of Table 2: Floorspace Limits for Neighbourhood Centres and the deletion of “1003, 1004 and 1005” from the “Description of Affected” Land column.

These changes are required to update the table and ensure consistency across the descriptions of the various shopping centres, and to correct an error in the “Description of Affected Land” column, as only lots 1001 and 1007 Chester Pass Road are zoned Neighbourhood Centre.

20. Insertion of a comma following the word “panel” in clause 5.5.12.6 to correct a typographical error.

21. Replacement of “form” with ‘from’ in sub-clause 5.5.13.2.1(a) to correct a typographical error.
22. Replacement of “20” with ‘15’ in bullet point two of sub-clause 5.5.13.2.2(c) to correct a typographical error.
23. Insertion of a new sub-clause under clause 5.5.13.2.2 Fire Protection, as follows:
- ‘(f) Water for fire fighting purposes shall be made available as follows:
- (i) The installation of fire hydrants (connected to the Water Corporation reticulated water supply); or
 - (ii) 50,000 litre water tanks with hydrants or standpipes provided at a rate of one per 25 lots, which are designed and constructed to the satisfaction of the Local Government; have a procedure in place to ensure that they are maintained at full capacity at all times; use galvanised or copper pipe above ground or PVC if buried at least 300 millimetres deep; and have a hardstand and turning area suitable for a 3.4 fire appliance adjacent to the hydrant/standpipe; or
 - (iii) Where individual 92,000 litre water supplies are provided on lots, in accordance with clause 5.6.9 of the Scheme, landowners shall ensure that tanks are designed so that the lower 32,000 litres are set aside for firefighting purposes by means of a dual tap system to the specification and satisfaction of the Local Government.’

This sub-clause is required to ensure that an adequate fire-fighting water supply is provided to each lot and/or dwelling, whether a reticulated water supply is available or not, in accordance with the *Planning for Bush Fire Protection Guidelines*.

24. Insertion of ‘(a)’ at the start of the existing clause 5.5.13.2.10 *Water Supply*, replacement of the full stop at the end with ‘; or’ and insertion of a new sub-clause as follows:
- ‘(b) Where it is demonstrated that a reticulated water supply from a licensed water service provider cannot be provided to each lot, a potable water supply is required to each dwelling and shall be the responsibility of the landowner in accordance with clause 5.6.9 of the Scheme.’

This sub-clause is required to ensure that the requirement to provide a water supply to each lot and/or dwelling is clearly specified.

25. Insertion of a new clause in Section 5.5.13 Rural Residential Zone as follows:

‘5.5.13.4 Subdivision

Prior to supporting the subdivision of areas within the Rural Residential zone that are not already the subject of an endorsed subdivision guide plan, the Local Government shall require a land capability assessment to be undertaken and an overall subdivision guide plan to be prepared for adoption by the Local Government in accordance with Part 2 of the Scheme and endorsement of the Western Australian Planning Commission.’

This clause is required to ensure that land capability assessment is undertaken and subdivision guide plans are created and endorsed for those areas of Rural Residential zoned land that are currently without a guide plan.

26. Replacement of “20” with ‘15’ in bullet point two of sub-clause 5.5.15.2.3(b) to correct a typographical error.

27. Insertion of a new sub-clause under clause 5.5.15.2.3 Fire Protection, as follows:

‘(f) Water for fire fighting purposes shall be made available as follows:

- (i) 50,000 litre water tanks with hydrants or standpipes provided at a rate of one per 25 lots, which are designed and constructed to the satisfaction of the Local Government; have a procedure in place to ensure that they are maintained at full capacity at all times; use galvanised or copper pipe above ground or PVC if buried at least 300 millimetres deep; and have a hardstand and turning area suitable for a 3.4 fire appliance adjacent to the hydrant/standpipe; or
- (ii) Where individual 92,000 litre water supplies are provided on lots, in accordance with clause 5.6.9 of the Scheme, landowners shall ensure that tanks are designed so that the lower 32,000 litres are set aside for firefighting purposes by means of a dual tap system to the specification and satisfaction of the Local Government.’

This sub-clause is required to ensure that an adequate fire-fighting water supply is provided to each lot and/or dwelling, whether a reticulated water supply is available or not, in accordance with the *Planning for Bush Fire Protection Guidelines*.

28. Replacement of “Single Houses” with ‘Grouped Dwellings’ in clause 5.5.16.1 to correct a wording error.

The Local Planning Scheme gives “Single House” the same definition as in the *Residential Design Codes of WA*, which is “a dwelling standing wholly on its own green title or survey strata lot, together with any easement over adjoining land for support of a wall or for access or services and excludes dwellings on titles with areas held in common property”. The term “Single House” therefore cannot be used in the plural form. The Scheme also uses the definition from the *R-Codes* for Grouped Dwellings; “A group of two or more dwellings (in this instance a maximum of two) on the same lot, such that no dwelling is placed wholly or partly above another, except where special conditions of landscape or topography dictate otherwise, and includes a dwelling on a survey strata with common property”.

Although staff at the Department of Planning Great Southern Regional Office have indicated that they do not consider ‘Grouped Dwelling’ an appropriate descriptor for a second dwelling on General Agriculture or Priority Agriculture zoned land, clause 4.4.1 of the Scheme states that “Where a specific land use is mentioned in the Zoning Table, it is deemed to be excluded from the general terms used to describe any other use.”

Furthermore, clause 4.4.2 of the Scheme states that “If a person proposes to carry out on land any use that is not specifically listed in the Zoning Table and **cannot reasonably be determined as falling within the type, class or genus of activity of any other use category**, the Local Government may:

- (a) Determine that the use is consistent with the objectives of the particular zone and is therefore permitted;
- (b) Determine that the use may be consistent with the objectives of the particular zone and thereafter follow the advertising procedures of clause 9.4 in considering an application for planning approval; or
- (c) Determine that the use is not consistent with the objectives of the particular zone and is therefore not permitted.”

The City of Albany would hold that a second dwelling on a lot zoned General Agriculture or Priority Agriculture would be consistent with the definition given to 'Grouped Dwellings' in the Residential Design Codes of WA and referenced in Schedule 1, Part 2 – Land Use Definitions within the Scheme.

29. Replacement of

“complies with an endorsed Local Planning Strategy prepared in accordance with Statement of Planning Policy 2.5 – Agriculture and Rural Land Use Planning.”

with

‘is in accordance with one of the exceptional circumstances outlined in the Western Australian Planning Commission’s *Development Control Policy 3.4 – Subdivision of Rural Land*.’

in clause 5.5.16.4, as the wording of the existing clause implies that land may be subdivided in accordance with the *Albany Local Planning Strategy* without being rezoned first, which is not the case. The proposed change will also ensure that subdivision proposals are correctly assessed against the provisions of *Development Control Policy 3.4*.

30. Replacement of “20” with ‘15’ in bullet point two of sub-clause 5.5.18.2.2(b) to correct a typographical error.

31. Replacement of sub-clauses ‘(i)’ and ‘(j)’ under clause 5.5.18.2.2 with the following:

‘(i) Water for fire fighting purposes shall be made available by the installation of fire hydrants connected to the Water Corporation reticulated water supply.’

This sub-clause is required to ensure that an adequate fire-fighting water supply is provided in accordance with the *Planning for Bush Fire Protection Guidelines*.

32. Replacement of “Rural Residential” with ‘Special Residential’ in clause 5.5.18.2.14(a) to correct a cross-referencing error. Clause 5.5.18.2.14(a) pertains to the Special Residential zone, not the Rural Residential zone.

33. Replacement of “Schedule 16” with ‘Schedule 15’ in sub-clause 5.5.18.2.14(a)(ii) to correct a cross-referencing error. Schedule 16 does not exist; the sub-clause should refer to Schedule 15, which pertains to the Special Residential zone.

34. Insertion of a new clause in Section 5.5.18 Special Residential Zone as follows:

‘5.5.18.4 Subdivision

Prior to supporting the subdivision of areas within the Special Residential zone, not already the subject of an endorsed subdivision guide plan, the Local Government shall require a land capability assessment to be undertaken and an overall subdivision guide plan to be prepared for adoption by the Local Government in accordance with Part 2 of the Scheme and endorsement of the Western Australian Planning Commission.’

This clause is required to ensure that land capability assessment is undertaken and subdivision guide plans are created and endorsed for those areas of Special Residential zoned land that are currently without a guide plan.

35. Insertion of a new row between “Caravan Park” and “Regional Centre” in Table 7: Site Requirements, with ‘Clubs and Institutions’ in the Zone column; ‘0.5’ in the Max. Plot Ratio column; ‘11’ in the Min. Setbacks (metres) – Front column; ‘7.5’ in the Min. Setbacks (metres) – Rear column; and ‘3’ in the Min. Setbacks (metres) – Side column.

Table 7 does not presently include provisions for the Clubs and Institutions zone. It has been determined that the values from former Town Planning Scheme No. 1A should be carried over into *Local Planning Scheme No. 1*, with the exception of the value for side setbacks, which was set at “2 per storey” in former *Town Planning Scheme No. 1A*. For ease of use, it has been determined that a single value of 3 would be appropriate.

36. Insertion of a new row between “Caravan Park” and “Regional Centre” in Table 8: Landscaping Requirements, with ‘Clubs and Institutions’ in the Zone column and ‘10’ in the Landscaping Area (% of site) column.

Table 8 does not presently include provisions for the Clubs and Institutions zone. It has been determined that the value for the percentage of the site to be landscaped, which was set at 25% in former *Town Planning Scheme No. 1A* was excessive and a value of 10% would be appropriate, as it is consistent with most other zones.

37. Insertion of the word ‘of’ following the word “preparation” in clause 5.9.1.3 to correct a typographical error.

38. Replacement of

“The local government requires a Structure Plan for a Structure Plan Area, or for any particular part or parts of a Structure Plan Area, before recommending subdivision or approving development of land within the Structure Plan Area.”

with

‘Subject to clause 5.5.3.2, as it applies to Future Urban zoned land, the Local Government shall not recommend subdivision or approve development of land within a Structure Plan Area, prior to the adoption of a Structure Plan under clause 5.9.1.5 of the Scheme for that Structure Plan Area, or any particular part or parts of that Structure Plan Area.’

in clause 5.9.1.3.1, in order to strengthen the clause to prohibit subdivision or development of land within a Structure Plan Area until an appropriate Structure Plan is adopted.

39. Replacement of “Note” with ‘Notes’ at the end of clause 8.2; insertion of ‘1.’ before “Development carried out in accordance with a subdivision approval granted by the Commission is exempt under the Planning and Development Act 2005”; and insertion of a new note as follows:

‘2. Prior to lodging a formal application for planning approval, details of any proposed minor works shall be submitted in writing to the Local Government, so that it may be determined if they are exempt from requiring the formal planning approval of the Local Government.’

The *Heritage of Western Australia Amendment Regulations 2012* have resulted in the owners of State Registered places no longer being required by law to seek the advice of the State Heritage Office on maintenance and minor works to their properties. It has been determined that a formal pre-assessment process would be the most suitable

way of determining whether works are exempt from requiring referral to the State Heritage Office and by extension, the planning approval of the Local Government.

40. Insertion of ‘the’ following the words “Part 6 of” in sub-clause 8.2(d), part (ii); deletion of the word “or” from the end of part (iii); replacement of the full stop at the end of part (iv) with ‘; or’; and insertion of a new part as follows:

‘(v) The subject of sub-clause 5.6.2(d)(ii)(e) of the Scheme.’

These changes are proposed to correct a typographical error and to clearly cross-reference sub-clause 5.6.2(d)(ii)(e), which requires that the demolition of some buildings would require the planning approval of the Local Government, even though they are not located in a place that has been entered in the *Register of Places* under the *Heritage of Western Australia Act 1990*; the subject of an Order under Part 6 of the *Heritage of Western Australia Act 1990*; included on the Heritage List under clause 7.1 of the Scheme; or located within a Heritage Area designated under the Scheme.

41. Insertion of a new land use definition between “**holiday accommodation**” and “**home business**” in Schedule 1, Part 2 – Land Use Definitions, as follows:

‘**holiday house** means a single dwelling on one lot used to provide short-term accommodation for not more than 6 persons but does not include a bed and breakfast/farmstay, a boarding/guest/lodging house, a chalet/cottage unit, or holiday accommodation.’

It has been determined that the Holiday House use is a more appropriate description for the use of a Single House for short-stay accommodation than ‘Holiday Accommodation’ and is consistent with the City of Albany’s *Holiday Homes Local Planning Policy*. The inclusion of a Holiday House use is broadly consistent with the proposed *Planning and Development (Local Planning Schemes) Regulations 2014* and the other land use classifications contained in *Local Planning Scheme No. 1*.

42. Insertion of ‘not’ into part (v) of the definition of “**home occupation**” in Schedule 1, Part 2 – Land Use Definitions to correct a typographical error and for consistency with the *Town Planning Regulations 1967 Model Scheme Text* definition and proposed *Planning and Development (Local Planning Schemes) Regulations 2014 Model Scheme Text* definition.

43. Replacement of the words “hires” and “provides” with ‘hire’ and ‘provide’ in the definition of “**shop**” in Schedule 1, Part 2 – Land Use Definitions to correct a typographical error and for consistency with the *Town Planning Regulations 1967 Model Scheme Text* definition and proposed *Planning and Development (Local Planning Schemes) Regulations 2014 Model Scheme Text* definition.

44. Insertion of a new land use definition between “**single house**” and “**storage**” in Schedule 1, Part 2 – Land Use Definitions, as follows:

‘**small bar** means premises the subject of a small bar licence granted under the Liquor Control Act 1988.’

The use of the Small Bar licence class is becoming ever more prevalent and is more suited to areas where traditional licensed venues such as Hotels and Taverns may have adverse impacts on amenity. The inclusion of a Small Bar use is also consistent with the proposed *Planning and Development (Local Planning Schemes) Regulations 2014*.

45. Replacement of “Portion Lot 30 Nanarup Road, Kalgan” with ‘Lot 32 Nanarup Road, Kalgan’ in the Description of Land column in Schedule 2 – Additional Uses, No. AU8 to provide the correct description of the land following subdivision.

46. Insertion of ‘Tavern ‘D’ and ‘Small Bar ‘D’ into the “Special Use” column under “Entertainment Precinct”; ‘Holiday Accommodation ‘D’, ‘Hotel ‘D’, ‘Small Bar ‘D’ and ‘Tavern ‘A’ into the “Special Use” column under “Accommodation Precinct”; ‘Holiday Accommodation ‘D’, ‘Small Bar ‘D’ and ‘Tavern ‘A’ into the “Special Use” column under “Commercial Precinct”; and ‘Small Bar ‘D’ and ‘Tavern ‘A’ into the “Special Use” column under “Town Jetty” in Schedule 4 – Special Use Zones, No. SU15.

“Hotel” is included in the *Albany Waterfront Structure Plan* within the “Accommodation Precinct”, but has not been included in *Local Planning Scheme No. 1*. Although ‘Motel’ is typically a more appropriate definition of the land use, it has been determined that ‘Hotel’ should be added for consistency of terminology and for flexibility, in terms of the land use definition according with the liquor licence class that may be issued for any licensed premises by the Department of Racing, Gaming and Liquor. It is also considered that with its proposed inclusion in the Scheme, ‘Small Bar’ should be added to the land use classes listed under the above precincts, as it will allow flexibility, both in terms of land use definitions and liquor licence classes.

“Short-stay Apartments” are listed under the “Accommodation Precinct” and “Commercial Precinct” in the Structure Plan and while this is not a use listed in the Scheme, ‘Holiday Accommodation’ is listed in the Scheme and is the most approximate use to “Short-stay Apartments”. It has been determined that ‘Holiday Accommodation’ should be listed under the “Accommodation Precinct” and “Commercial Precinct” to facilitate development of self-contained short-stay apartments.

‘Tavern’ should be included for the same reasons as ‘Small Bar’.

47. Insertion of a bullet point before “Caretaker’s Accommodation” at the beginning of the second paragraph of Schedule 12 – Conservation Zone Provisions, No. CZ1, provision 3.1 and replacement of the bullet points before the subsequent sub-provisions with letters (a-f) to correct a typographical error and provide a consistent format.

48. Replacement of “as as an archaeological assessment” with ‘and an archaeological assessment’ and replacement of

“Should such species or sites be identified, the Local Government shall require the selection of an alternative species or sites be identified. The Local Government shall require the selection of an alternative Development Area or the modification of the Development Area so as to protect said sites or rare, endangered and/or threatened species.”

with

“Should such species or sites be identified, the Local Government shall require the selection of an alternative Development Area or the modification of the Development Area so as to protect said sites or rare, endangered and/or threatened species.”

in Schedule 12 – Conservation Zone Provisions, No. CZ1, provision 4.5 to correct a typographical error and provide clarity.

49. Replacement of “approval of a development” with ‘approval for the development of a dwelling’ in Schedule 12 – Conservation Zone Provisions, no. CZ1, sub-provision 5.6(ii) to improve the wording of the clause and provide clarity.
50. Replacement of “40 metres from any front boundary” with ‘40m from Roberts Road’ in Schedule 14 – Rural Residential Zone No. RR29, sub-provision 5(a) to correct a typographical error. Former *Town Planning Scheme No. 3* prescribed a 40m setback from Roberts Road only.
51. Relocation of existing provision 8 between provisions 5 and 6; renumbering provision 8 as provision 6; and renumbering existing provisions 6 and 7 as provisions 7 and 8 respectively, in Schedule 14 – Rural Residential Zone No. RR29.
- The reordering and renumbering of these provisions is required in the interests of clarity; existing provisions 5 and 8 are better to be read in conjunction, as they both relate to setbacks in relation to lot boundaries and the Well Head Protection Zone Buffers.
52. Replacement of “the provisions under “4.0” below” with ‘the provisions of clause 5.5.13.2.8 of the Scheme’ and replacement “Clause 5.1” with ‘provision 6(a) below’ in Schedule 14 – Rural Residential Zone No. RR30, provision 4, bullet point 5 to correct a cross-referencing error.
53. Replacement of “Lot 410” with ‘Lot 401’ in Schedule 14 – Rural Residential Zone No. RR35, sub-provision 6(c) to correct a typographical error.
54. Insertion of a new bullet point with ‘Holiday House’ under “The following land uses are ‘D’ discretionary uses” in Schedule 15 – Special Residential Zone No. SR8, provision 4.
- Council had agreed to include ‘Holiday Accommodation’ as a permissible land use in Special Residential zone No. SR8 in response to submission V36 on draft Local Planning Scheme No. 1; however, the inclusion of this land use class was not considered appropriate by the Minister’s Office. It has been determined that the land use class ‘Holiday House’ would be more appropriate.

Altering various parts of the Scheme Maps to correct identified anomalies and errors, and to rezone some portions of land to reflect recent changes in cadastral boundaries and associated land use as follows:

1. Returning a portion of Lot 200 Kitson Street and Reserve 30599 Roundhay Road, Gledhow from the Parks and Recreation local scheme reserve to the General Industry zone and a portion of adjoining Lot 0 from the Parks and Recreation local scheme reserve to the Local Roads local scheme reserve on Map 4 to correct a mapping error.
- Lot 200 Kitson Street is privately owned and Reserve 30599 is owned by the City of Albany. Both lots were zoned General Industry under former *Town Planning Scheme No. 3* and were designated as Parks and Recreation local scheme reserves in *Local Planning Scheme No. 1*, in error. Due to the private ownership of Lot 200 Kitson Street, and the condition and location of Reserve 30599, it has been determined that the Parks and Recreation local scheme reserve is an inappropriate designation and that the land should be returned to the General Industry zone. A portion of adjoining Lot 0 forms part of a road reserve and was also designated as a Parks and Recreation local

scheme reserve in *Local Planning Scheme No. 1*, in error. It has been determined that as part of these changes, the affected portion of this lot should be returned to the Local Roads local scheme reserve.

2. Rezoning Reserve 25385 Drummond Street, Lockyer from the Parks and Recreation local scheme reserve to the Clubs and Institutions zone on Map 5.

Reserve 25385 serves the function of a small local neighbourhood park; however, it is not of a sufficient size or shape to justify significant expenditure by the City of Albany. It also adjoins a well developed regional park (Weelara Park).

Parklands School requires additional land for its future requirements. The ability to use Reserve 25385 would allow for reconfiguration of the school, providing a more formal entry to Drummond Street and a greater area for recreational use.

The Department of Regional Development and Lands disposed of the land to the City of Albany, which now owns it in freehold. The City has subsequently entered into a lease and license agreement with Parklands School, whereby 1200m² of the land is leased for the purpose of an Educational Establishment. The remaining 3543m² is licensed to Parklands School for the purpose of Public Open Space and is managed and maintained by the school to the satisfaction of the City. The lease and license were determined by Council at its Ordinary Meetings on 19 March 2013 and 16 July 2013 (see Appendix 1).

It is therefore proposed to transfer this land from the Parks and Recreation local scheme reserve to the Clubs and Institutions zone to reflect the changes in tenure and land use.

3. Transferring Lot 49 Stead Road, Centennial Park from the Local Road local scheme reserve to the Regional Centre Mixed Business zone on Map 5 to correct a mapping error.

Lot 49 Stead Road is privately owned and was zoned Industry under former *Town Planning Scheme No. 1A*. The surrounding area, which had also been zoned Industry, passed to the Regional Centre Mixed Business zone with the introduction of *Local Planning Scheme No. 1*. Lot 49 was designated as a Local Roads local scheme reserve in error and it has been determined that it should be transferred to the Regional Centre Mixed Business zone for consistency with the surrounding land.

4. Including the designation 'IA1' on Lot 392 Chester Pass Road, Walmsley (Ardes Industrial Estate) on Map 8 to correct a mapping error and to correspond with the Scheme text.

5. Replacing the designation "RR1" on the Millbrook Rural Residential area with 'RR3B' on Map 12 to correct a mapping error and to correspond with the Scheme text.

6. Transferring Lot 4440 Pony Club Road, Willyung from the Parks and Recreation local scheme reserve to the Special Residential zone on Map 12 to correct a mapping error.

Lot 4440 is privately owned and was formerly included in the Clubs and Institutions zone, along with the adjacent Reserve 1189 Pony Club Road, which accommodates the King River Pony Club. The lot was designated as a Parks and Recreation local scheme reserve in *Local Planning Scheme No. 1*, in error. However, given the physical separation of Lot 4440 from Reserve 1189 by Willyung Creek, it has been determined more appropriate to transfer Lot 4440 to the adjacent Special Residential zone.

7. Returning portions of Lot 12 Bushby Road and Lots 21, 23, 24 and 25 Shell Bay Road, Lower King from the Residential zone to the Parks and Recreation local scheme reserve on Map 13 to correct a mapping error.

Portions of these lots were designated as Parks and Recreation local scheme reserves under former *Town Planning Scheme No. 3*, but were transferred into the Residential zone in *Local Planning Scheme No. 1*, in error. It has been determined that the land should be returned to the Parks and Recreation local scheme reserve for the protection of the King River foreshore.

8. Rezoning a portion of Lot 33 Nanarup Road, Kalgan from the General Agriculture zone and Additional Use Site No. AU8 to the Rural Residential zone and a portion of Lot 32 Nanarup Road, Kalgan from the Rural Residential zone to the General Agriculture zone and Additional Use Site No. AU8 on Map 14.

This land was rezoned in former Town Planning Scheme No. 3 and subsequently subdivided. However, the new cadastral boundary that resulted from the subdivision does not align with the zoning boundary. It is proposed to correct this anomaly by realigning the zoning boundary to match the cadastral boundary between Lots 32 and 33.

9. Rezoning Lot 2 Station Street, Youngs Siding from the Residential zone to the Local Centre zone on Map 20 to correct a mapping error.

Lot 2 was zoned Service Station under former *Town Planning Scheme No. 3* and was rezoned Residential in *Local Planning Scheme No. 1* in error. As this change has removed potential commercial development rights, it has been determined that a commercial zoning should be reinstated. Given that the former Service Station zone has been replaced at Youngs Siding by the Local Centre zone, it is proposed to rezone Lot 2 to the Local Centre zone as well.

10. Replacing the designation "1C" on the Cape Riche Rural Residential area with 'RR1C' on Map 30 to correct a mapping error and to correspond with the Scheme text.

11. Transferring a portion of Lot 214 Parker Brook Road, Drome from the General Agriculture zone to the Public Use local scheme reserve on Map 36.

The boundary of Lot 214 was recently realigned to encompass a portion of General Agriculture zoned land to the north, for the purpose of extending the runway at Albany Regional Airport. It is proposed to correct the resultant zoning anomaly by transferring this portion of Lot 214 to the Public Use local scheme reserve.

12. Including a Public Drinking Water Sources Special Control Area boundary around the Angove Creek Public Drinking Water Source Area on Maps 37, 40 and 41.

Council had agreed to include a Public Drinking Water Sources Special Control Area boundary around the Angove Creek Public Drinking Water Source Area in response to submission GA15 on draft *Local Planning Scheme No. 1*; however, the inclusion of this Special Control Area would have constituted a major modification to the draft Local Planning Scheme and would have required it to be re-advertised. Furthermore, the Angove Creek Public Drinking Water Source Area had not been finalised and gazetted at the time. Since finalization of the Scheme, the Public Drinking Water Source Area










has been gazetted and it is now proposed to include a Public Drinking Water Sources Special Control Area boundary around it on the Scheme Maps.

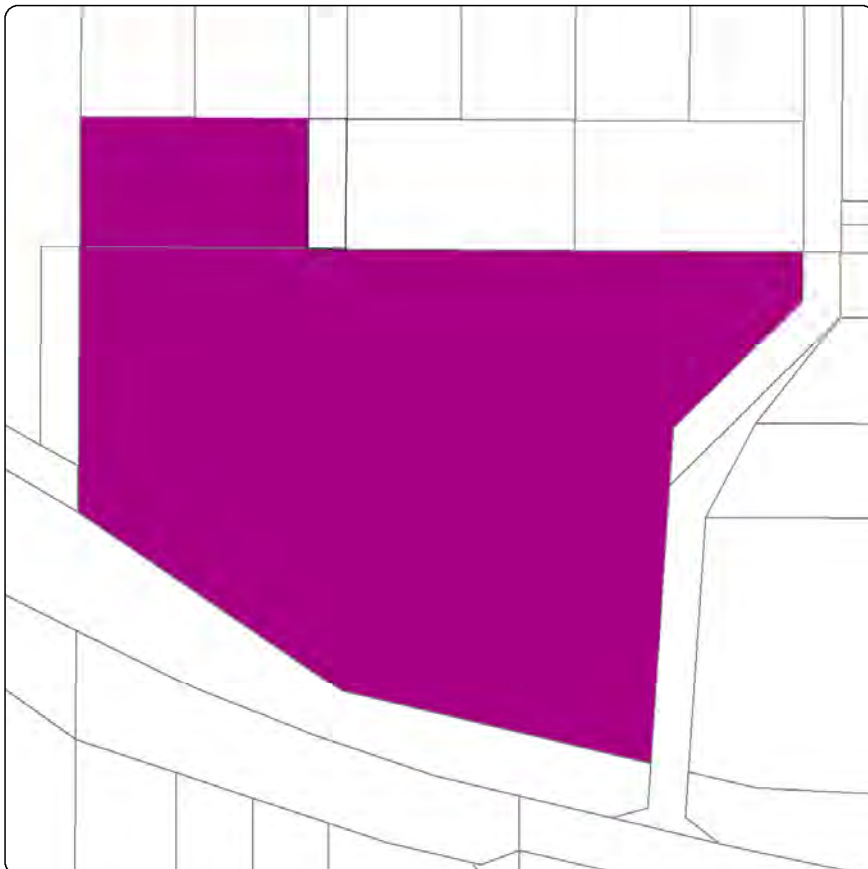
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 1



Existing Zoning



LPS1

-  Public Drinking Water Sources Special Control Areas (see c.6.3)
-  Cadastre
-  Local Road
-  Priority Road
-  Parks and Recreation
-  Rail
-  General Industry
-  Light Industry
-  Rural Small Holding



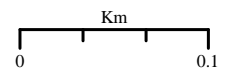
Proposed Zoning

Proposed Amendment

-  Local Road
-  General Industry



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REPORT ITEM PD069 REFERS

CITY OF ALBANY

Local Planning Scheme No. 1

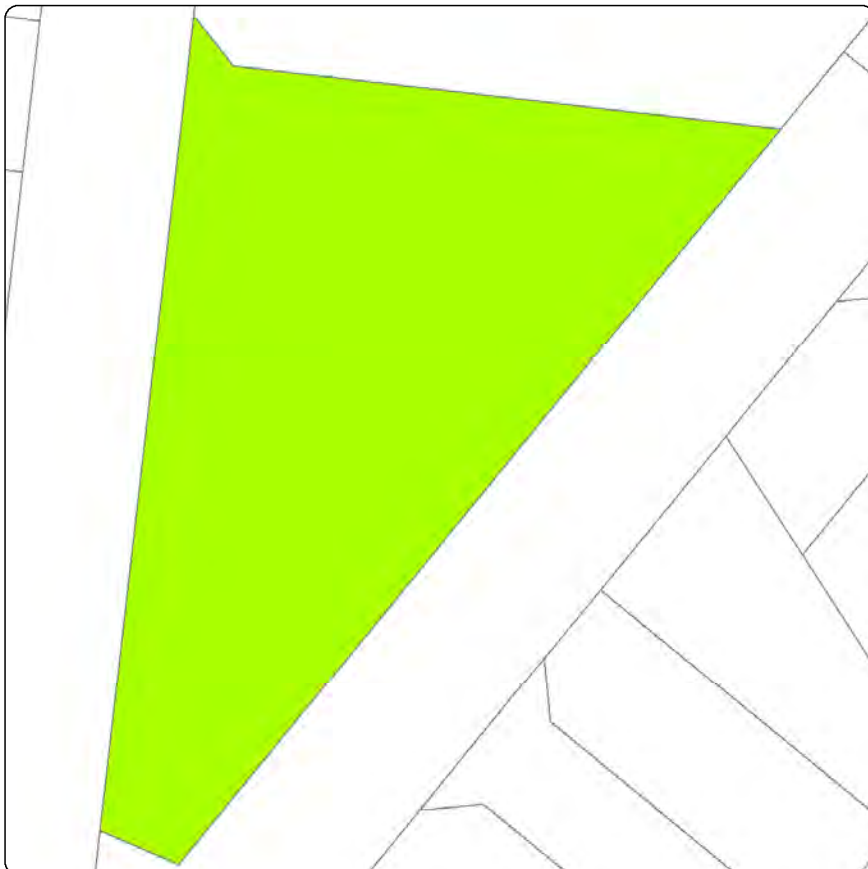
Amendment No. 13 - Alteration 2



Existing Zoning

LPS1

- R Code Boundary
- Cadastre
- Local Road
- Parks and Recreation
- Clubs and Institutions
- Residential



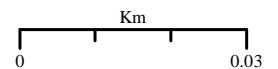
Proposed Zoning

Proposed Amendment

- Clubs and Institutions



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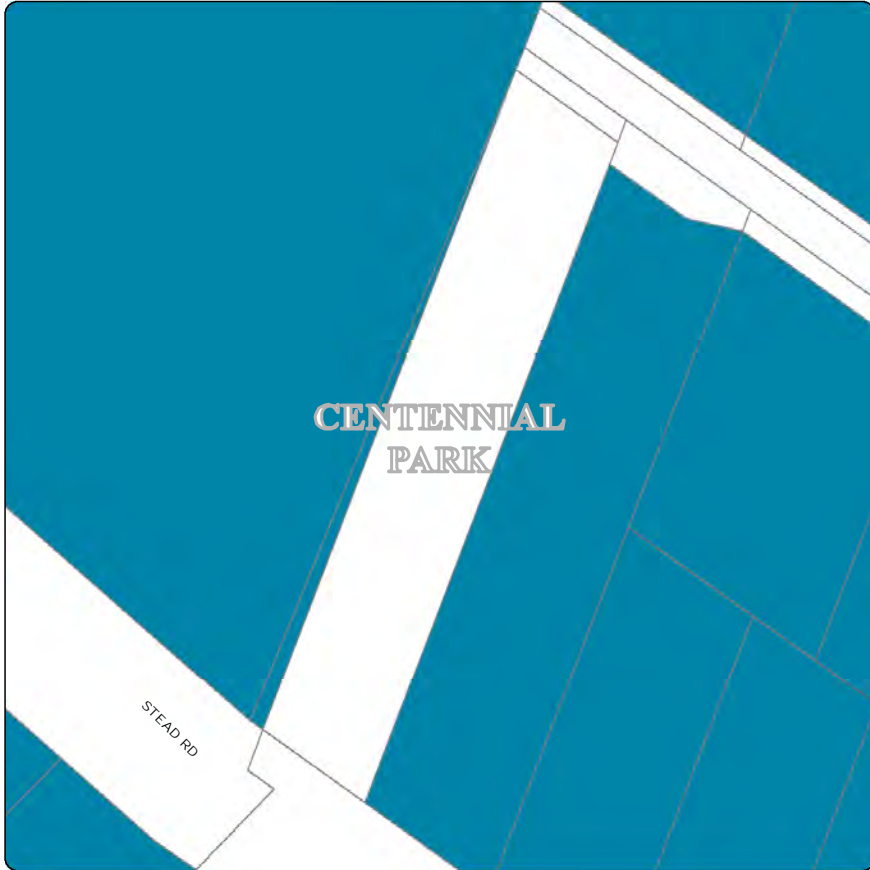


REPORT ITEM PD069 REFERS

CITY OF ALBANY

Local Planning Scheme No. 1

Amendment No. 13 - Alteration 3



Existing Zoning

LPS1

- Cadastre
- Local Road
- Regional Centre Mixed Business



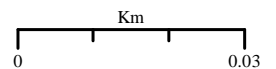
Proposed Zoning

Proposed Amendment

- Regional Centre Mixed Business



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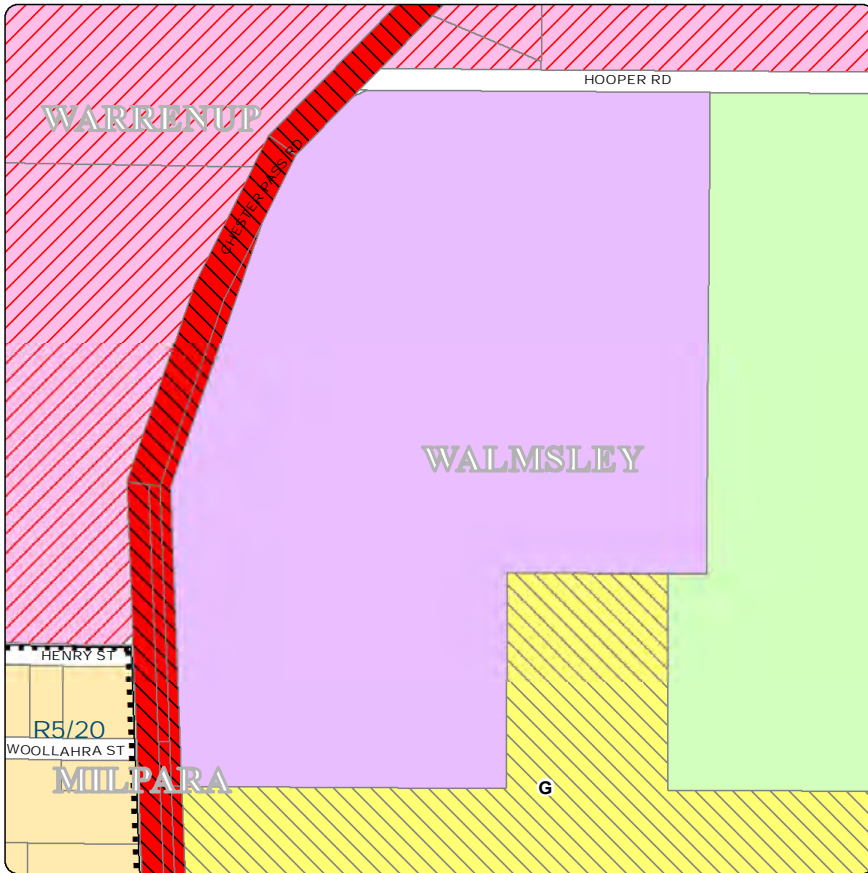


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








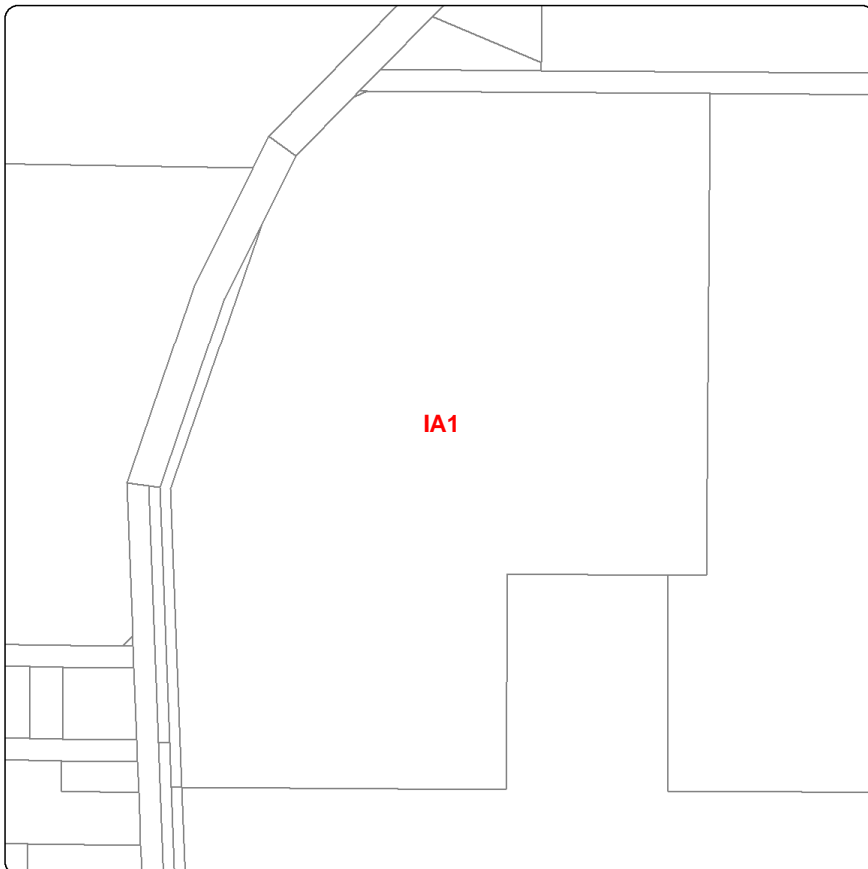
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 4



Existing Zoning

LPS1

-  R Code Boundary
-  Cadastre
-  Local Road
-  Major Road
-  Public Use
-  Light Industry
-  Residential
-  Future Urban
-  General Agriculture

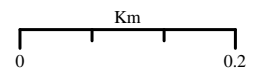


Proposed Zoning

Proposed Amendment



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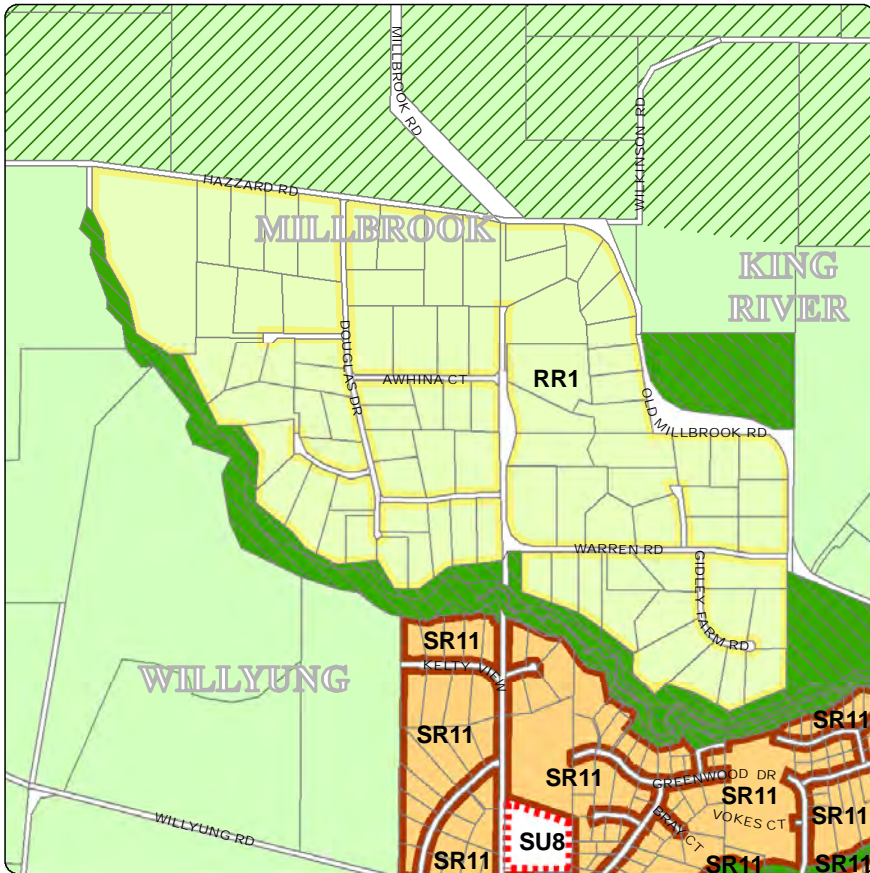
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CITY OF ALBANY REPORT ITEM PD069 REFERS

Local Planning Scheme No. 1

Amendment No. 13 - Alteration 5












Existing Zoning



Proposed Zoning

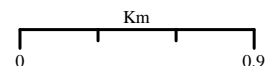
LPS1

-  Cadastre
-  Special Use
-  Local Road
-  Parks and Recreation
-  ZONES_SU_Underlay
-  Special Residential
-  Rural Residential
-  General Agriculture
-  Priority Agriculture

Proposed Amendment



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CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 6



LPS1

- Cadastre
- Local Road
- Parks and Recreation
- Caravan and Camping
- Special Residential
- General Agriculture

Existing Zoning



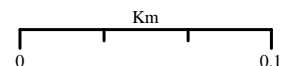
Proposed Amendment

- Special Residential

Proposed Zoning



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Date Printed: 20/01/2015

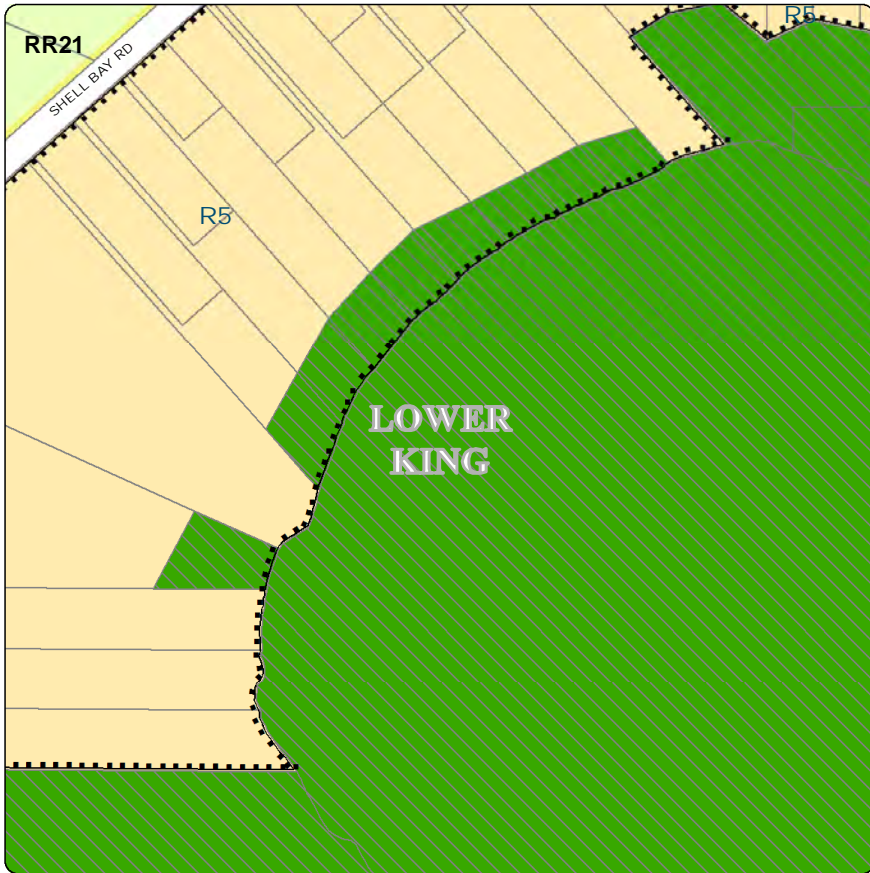


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





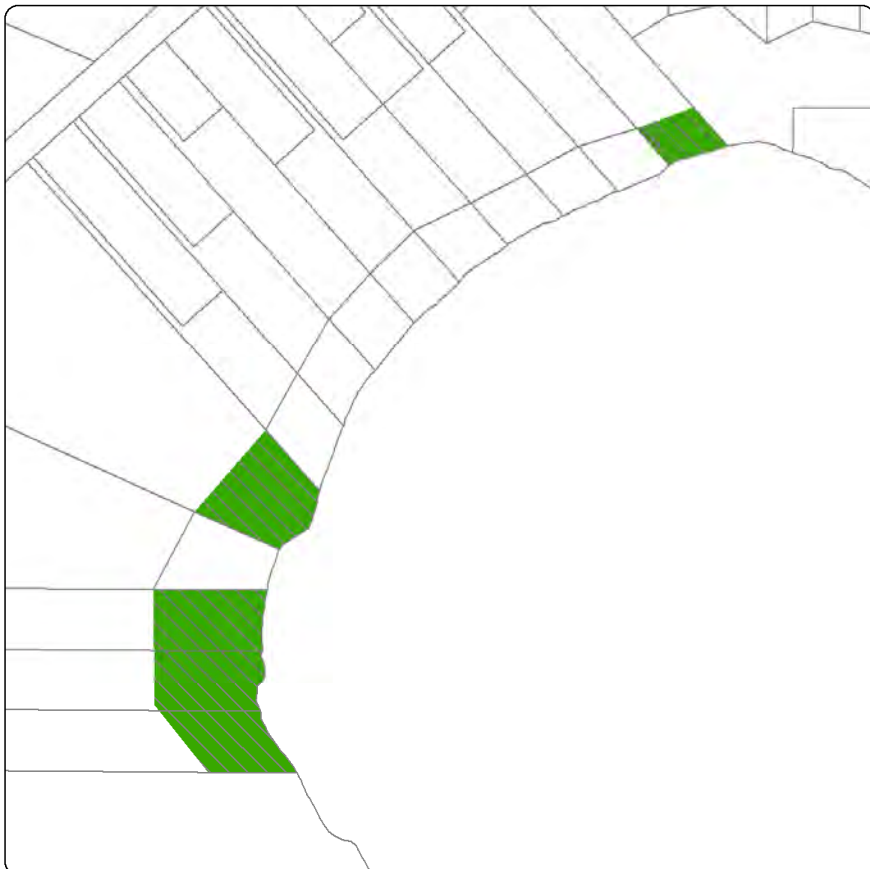
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 7



Existing Zoning


LPS1

-  R Code Boundary
-  Cadastre
-  Local Road
-  Parks and Recreation
-  Residential
-  Rural Residential



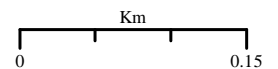
Proposed Zoning

Proposed Amendment

-  Parks and Recreation



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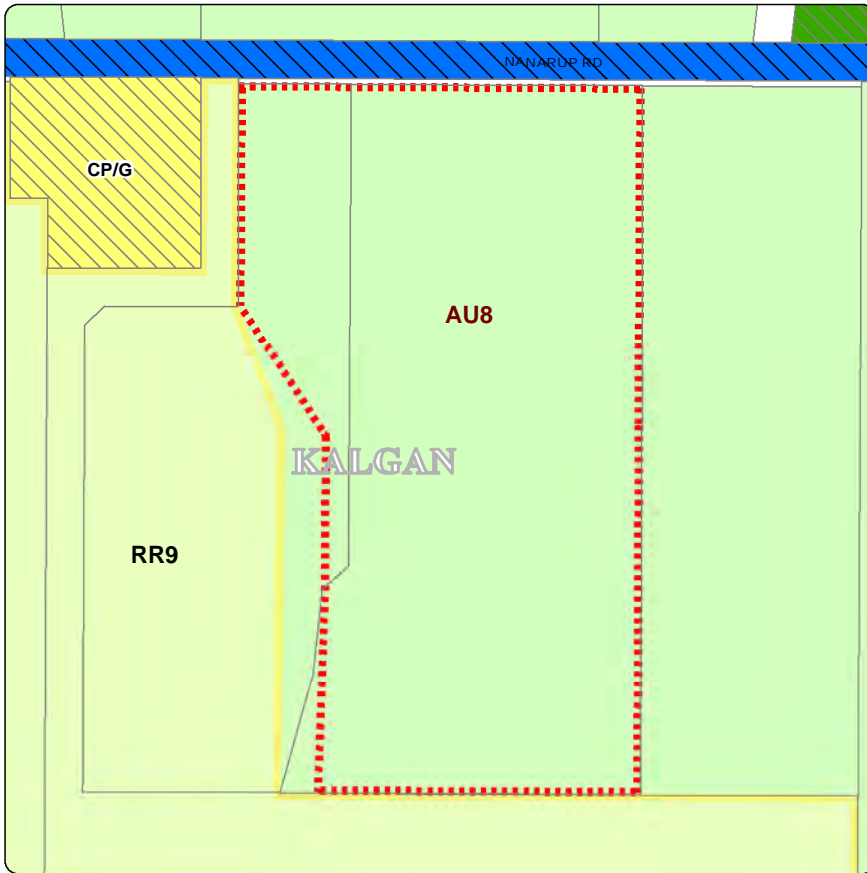


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CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 8



Existing Zoning

LPS1

- Cadastre
- Additional Use
- Local Road
- Priority Road
- Parks and Recreation
- Public Use
- Rural Residential
- General Agriculture



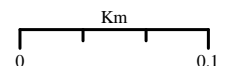
Proposed Zoning

Proposed Amendment

- Additional Use
- Rural Residential
- General



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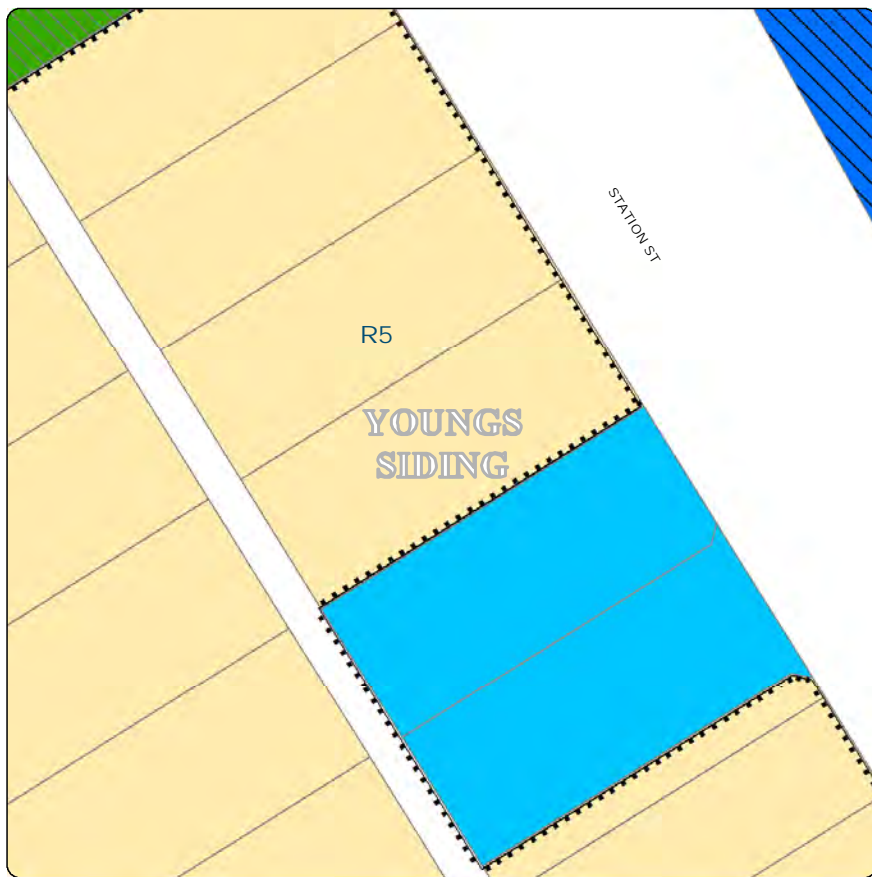


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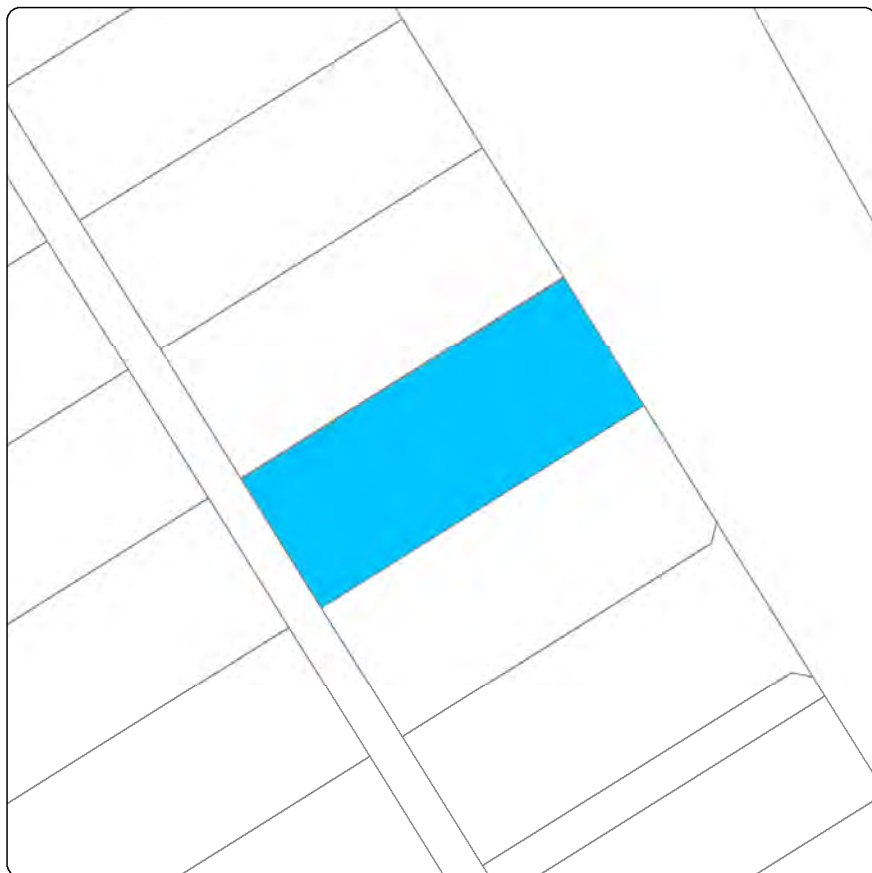
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 9



LPS1

-  R Code Boundary
-  Cadastre
-  Local Road
-  Priority Road
-  Parks and Recreation
-  Local Centre
-  Residential

Existing Zoning



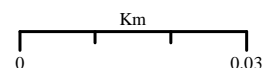
Proposed Amendment

-  Local Centre

Proposed Zoning

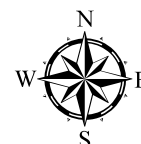


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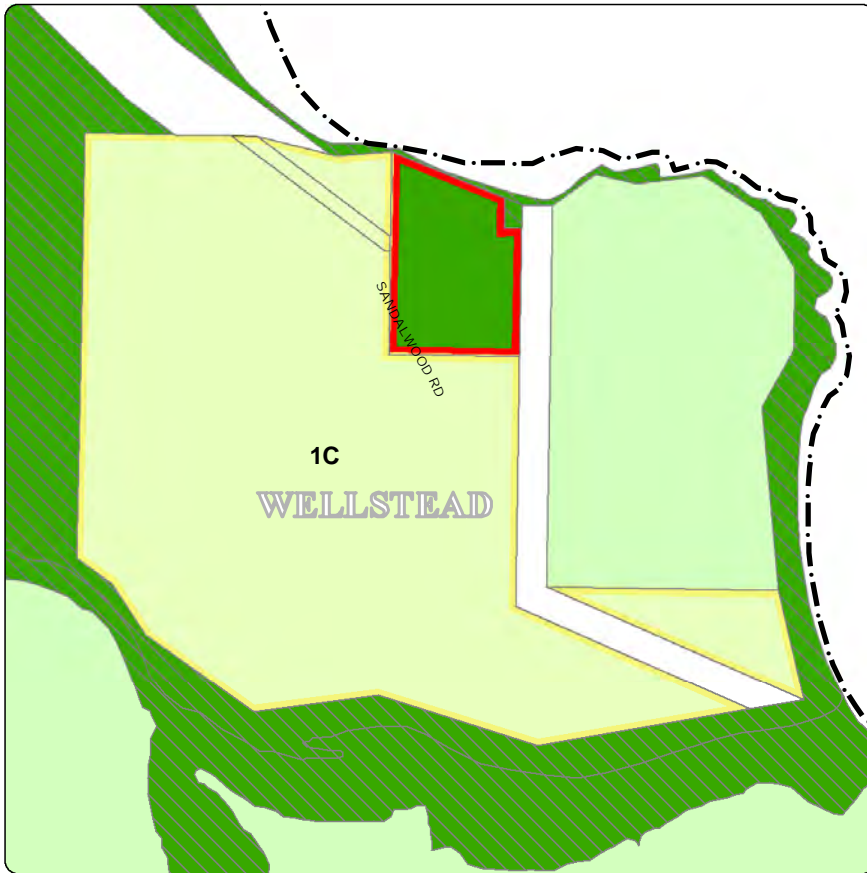


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



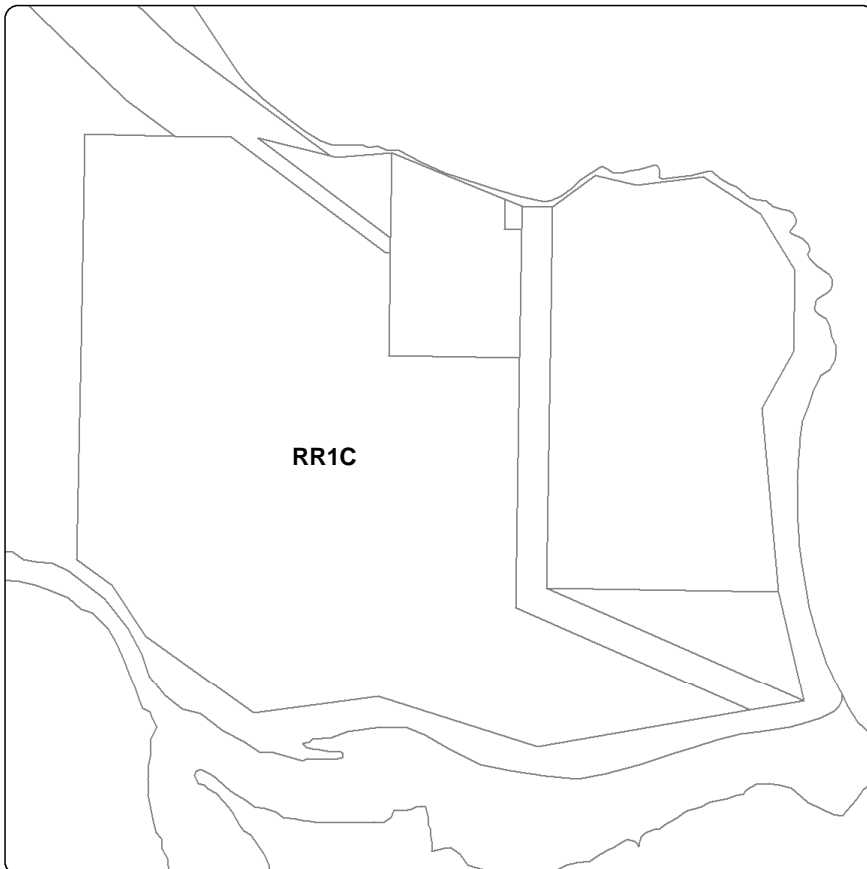
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 10



Existing Zoning

LPS1

-  Cadastre
-  Local Road
-  Parks and Recreation
-  Caravan and Camping
-  Rural Residential
-  General Agriculture

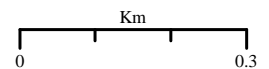


Proposed Zoning

Proposed Amendment



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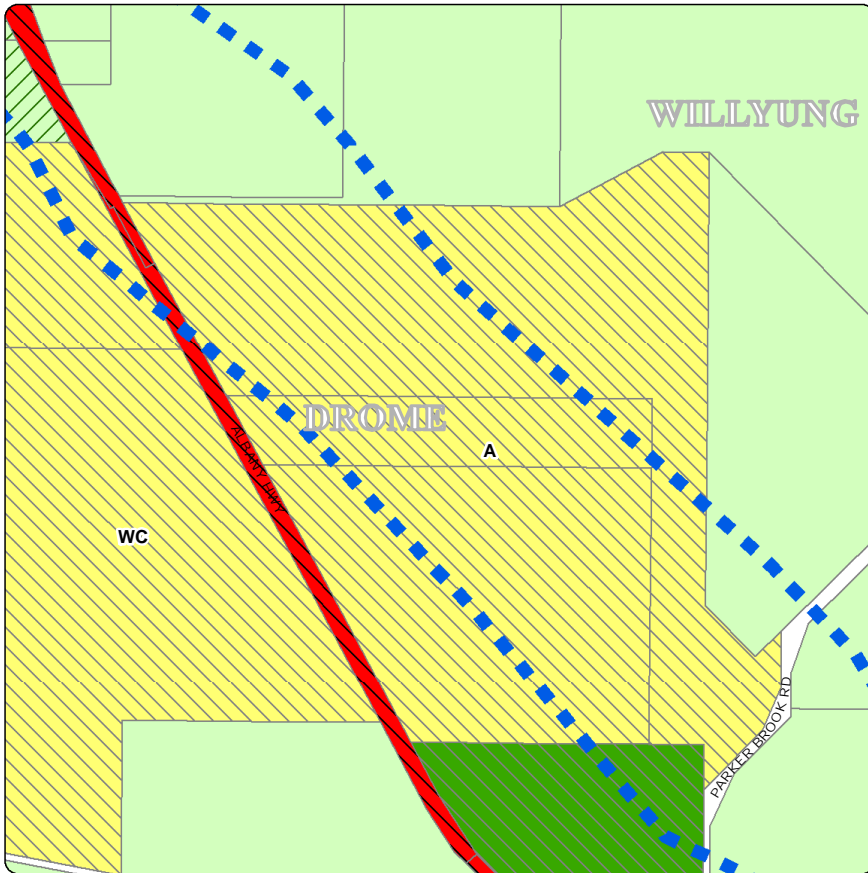


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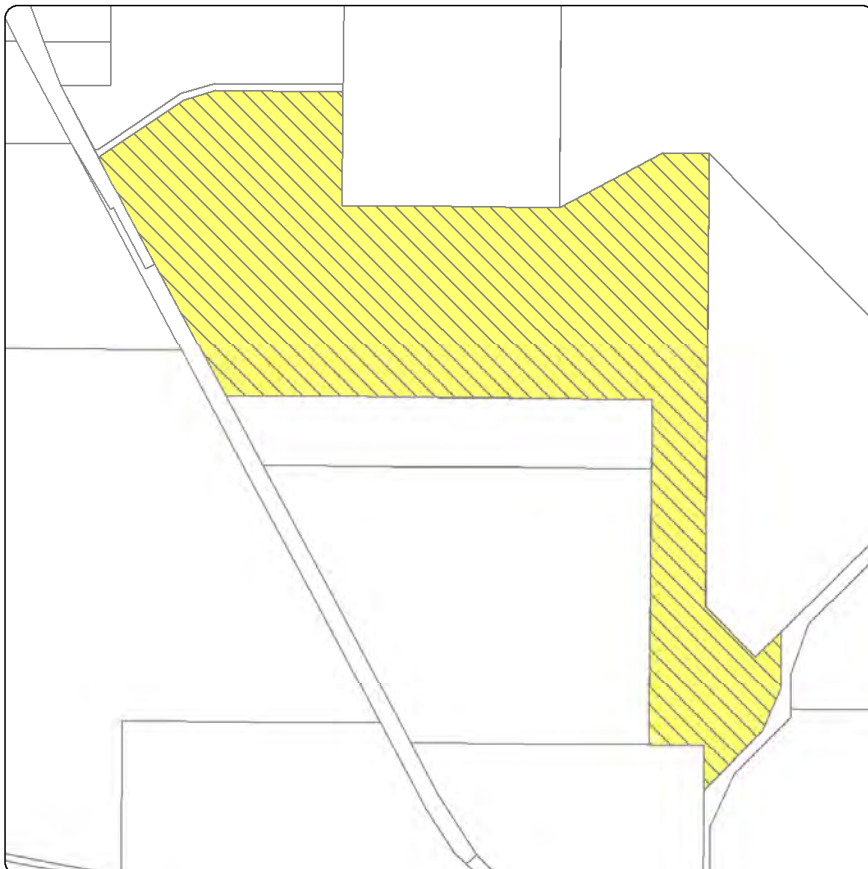
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 11



Existing Zoning

LPS1

- Albany Airport Special Control Area (see c.6.2)
- Cadastre
- Local Road
- Major Road
- Parks and Recreation
- Public Use
- General Agriculture
- Priority Agriculture



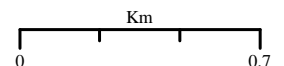
Proposed Zoning

Proposed Amendment

- Public Use



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Date Printed: 20/01/2015

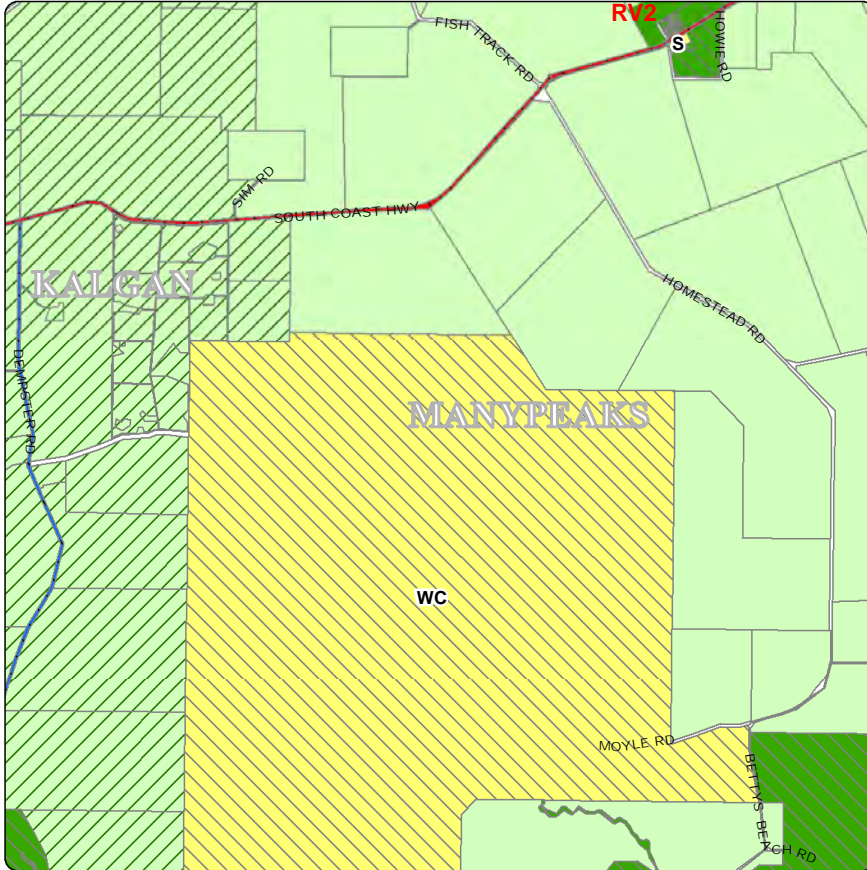


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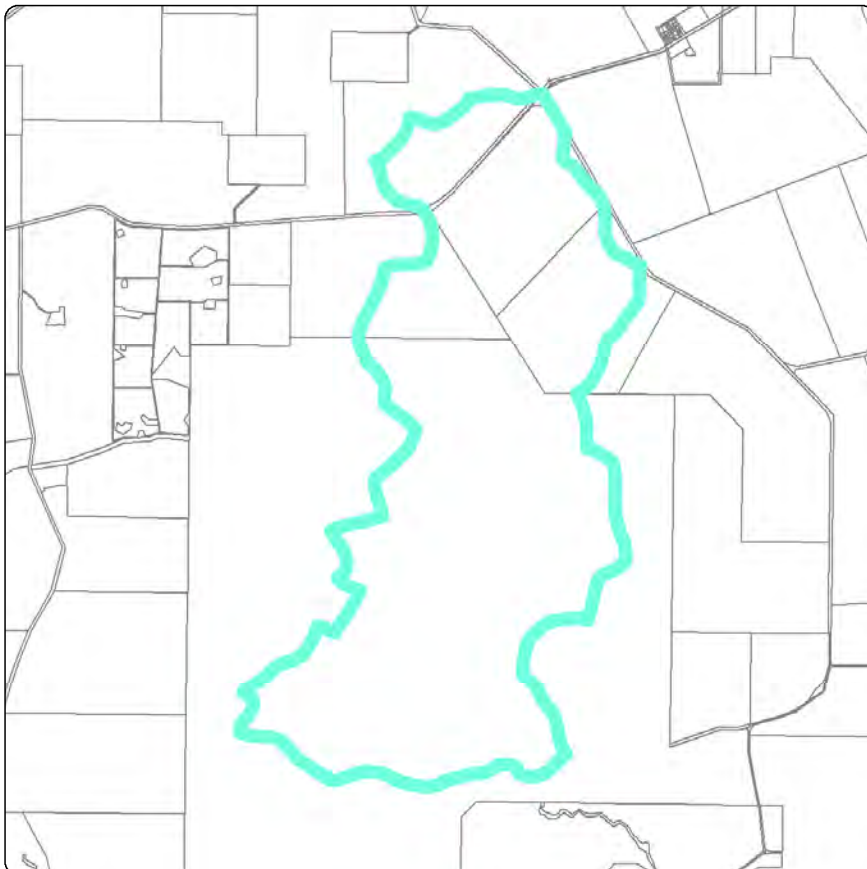
CITY OF ALBANY REPORT ITEM PD069 REFERS
Local Planning Scheme No. 1
Amendment No. 13 - Alteration 12



Existing Zoning


LPS1

-  Cadastre
-  Local Road
-  Priority Road
-  Major Road
-  Parks and Recreation
-  Public Use
-  General Agriculture
-  Priority Agriculture
-  Rural Village



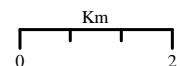
Proposed Zoning

Proposed Amendment

-  Public Drinking Water Sources Special Control Areas (see c.6.3)



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PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME
CITY OF ALBANY
LOCAL PLANNING SCHEME No. 1
AMENDMENT No. 13

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

Altering various parts of the Scheme Text to correct identified anomalies and errors; improve the functionality of some clauses, sub-clauses and provisions; and to bring about greater consistency with model provisions as follows:

1. Table of Contents, Part 11 – replace “ADVERTISEMENTS” with ‘ADVERTISEMENTS’.
2. Table of Contents – after the section headed “SCHEDULES”, insert a new section as follows:

‘TABLES

Table 1 – Zoning Table

Table 2 – Floorspace Limits for Neighbourhood Centres

Table 3 – Floorspace Limits for Local Centres

Table 4 – R1 Density Code Provisions

Table 5 – Car and Bicycle Parking Requirements

Table 6 – Construction Standards for Car Parking Bays

Table 7 – Site Requirements

Table 8 – Landscaping Requirements’

3. Clause 4.2.3(a) – replace “developed for the desirable ultimate long term use” with ‘fully-serviced urban development’.
4. Table 1: Zoning Table – Animal Establishment – replace “X” with ‘D’ in the Priority Agriculture zone.
5. Table 1: Zoning Table – Bed and Breakfast/Farmstay – replace “D” with ‘X’ in the Hotel/Motel zone.
6. Table 1: Zoning Table – Exhibition Centre – replace “X” with ‘A’ in the General Agriculture and Priority Agriculture zones.
7. Table 1: Zoning Table – insert a new row between “Holiday Accommodation” and “Home Business” with ‘Holiday House’ in the Land Use column; a ‘P’ in the Tourist Residential zone; a ‘D’ in the Residential, Regional Centre, Rural Small Holding and Rural Village zones; an ‘A’ in the Yakamia Creek, Regional Centre Mixed Use, General Agriculture and Priority Agriculture zones; and an ‘X’ in all other zones.

8. Table 1: Zoning Table - Insert 'see note 3' after the "Grouped Dwelling" use and insert an additional note at the end of the "Table Notes" at the bottom of the Zoning Table as follows:

³ Grouped dwellings will require the planning approval of the Local Government on land zoned General Agriculture or Priority Agriculture subject to clause 5.5.16.1 of the Scheme.'

9. Table 1: Zoning Table – Grouped Dwelling – replace "X" with 'D' in the General Agriculture and Priority Agriculture zones.
10. Table 1: Zoning Table – Multiple Dwelling – replace "D" with 'X' in the Caravan and Camping zone.
11. Table 1: Zoning Table – Place of Worship – replace "X" with 'A' in the Light Industry and Local Centre zones.
12. Table 1: Zoning Table – Reception Centre – replace "X" with 'A' in the General Agriculture and Priority Agriculture zones.
13. Table 1: Zoning Table – Residential Building – replace "X" with 'A' in the Regional Centre Mixed Use zone.
14. Table 1: Zoning Table – Restaurant – replace "X" with 'A' in the General Agriculture and Priority Agriculture zones.
15. Table 1: Zoning Table – Insert a new row between "Single House" and "Storage" with 'Small Bar' in the Land Use column; a 'D' in the Regional Centre and Regional Centre Mixed Use zones; an 'A' in the Tourist Residential, Hotel/Motel, Clubs & Institutions, Neighbourhood Centre, Local Centre, General Agriculture and Priority Agriculture zones; and an 'X' in all other zones.
16. Table 1: Zoning Table – Tavern – replace "X" with 'A' in the General Agriculture and Priority Agriculture zones.
17. Clause 5.4.1.1 – replace

"The Local Government's objectives in implementing fire protection and bush fire control measures are to:

- d) Identify areas within the City where bush fires pose a threat to life and property;
- e) Require that all land use and development proposals incorporate appropriate fire protection requirements; and
- f) Implement the relevant Western Australian Planning Commission Bushfire Protection policies and guidance."

with

'The Local Government's objectives in implementing fire protection and bush fire control measures are to:

- f) Identify areas within the City where bush fires pose a threat to life and property;
- g) Where bush fire risk is moderate, require that all land use and development proposals incorporate appropriate fire protection requirements;
- h) Implement the relevant Western Australian Planning Commission Bushfire Protection policies and guidance;

- i) Prevent development in areas of extreme bushfire risk, unless that development is unavoidable; and
 - j) Limit clearing of native vegetation where it would be necessary to manage or reduce bushfire risk.'
18. Clause 5.5.3.1 – renumber existing clauses 5.5.3.1 and 5.5.3.2 as 5.5.3.2 and 5.5.3.3 respectively and insert new clause 5.5.3.1, to read as follows:
- 'Subject to clause 5.5.3.2, any lot within the Future Urban zone shall not be developed, used or subdivided, other than in accordance with a Structure Plan adopted under clause 5.9.1.5 of the Scheme.'
19. Table 2: Floorspace Limits for Neighbourhood Centres – replace "Shopping Centre Name" with 'Locality'; "Albany Centro" with 'Lange (Brooks Garden)'; and "North Road" with 'Yakamia (North Road)' in the first column and delete "1003, 1004 and 1005" from the "Description of Affected" Land column.
20. Clause 5.5.12.6 – insert a comma following the word "panel".
21. Sub-clause 5.5.13.2.1(a) – replace "form" with 'from'.
22. Subclause 5.5.13.2.2(c) – replace "20" with '15' in bullet point two.
23. Clause 5.5.13.2.2 Fire Protection – insert a new sub-clause as follows:
- '(f) Water for fire fighting purposes shall be made available as follows:
 - (iv) The installation of fire hydrants (connected to the Water Corporation reticulated water supply); or
 - (v) 50,000 litre water tanks with hydrants or standpipes provided at a rate of one per 25 lots, which are designed and constructed to the satisfaction of the Local Government; have a procedure in place to ensure that they are maintained at full capacity at all times; use galvanised or copper pipe above ground or PVC if buried at least 300 millimetres deep; and have a hardstand and turning area suitable for a 3.4 fire appliance adjacent to the hydrant/standpipe; or
 - (vi) Where individual 92,000 litre water supplies are provided on lots, in accordance with clause 5.6.9 of the Scheme, landowners shall ensure that tanks are designed so that the lower 32,000 litres are set aside for firefighting purposes by means of a dual tap system to the specification and satisfaction of the Local Government.'
24. Clause 5.5.13.2.10 Water Supply – insert '(a)' at the start of the existing clause and replace the full stop at the end with '; or' and insert a new sub-clause as follows:
- '(b) Where it is demonstrated that a reticulated water supply from a licensed water service provider cannot be provided to each lot, a potable water supply is required to each dwelling and shall be the responsibility of the landowner in accordance with clause 5.6.9 of the Scheme.'
25. Section 5.5.13 Rural Residential Zone – insert a new clause as follows:
- '5.5.13.4 Subdivision
- Prior to supporting the subdivision of areas within the Rural Residential zone that are not already the subject of an endorsed subdivision guide plan, the Local Government shall require a land capability assessment to be undertaken and an overall subdivision

guide plan to be prepared for adoption by the Local Government in accordance with Part 2 of the Scheme and endorsement of the Western Australian Planning Commission.'

26. Sub-clause 5.5.15.2.3(b) – replace “20” with ‘15’ in bullet point two.

27. Clause 5.5.15.2.3 Fire Protection – insert a new sub-clause as follows:

‘(f) Water for fire fighting purposes shall be made available as follows:

(iii) 50,000 litre water tanks with hydrants or standpipes provided at a rate of one per 25 lots, which are designed and constructed to the satisfaction of the Local Government; have a procedure in place to ensure that they are maintained at full capacity at all times; use galvanised or copper pipe above ground or PVC if buried at least 300 millimetres deep; and have a hardstand and turning area suitable for a 3.4 fire appliance adjacent to the hydrant/standpipe; or

(iv) Where individual 92,000 litre water supplies are provided on lots, in accordance with clause 5.6.9 of the Scheme, landowners shall ensure that tanks are designed so that the lower 32,000 litres are set aside for firefighting purposes by means of a dual tap system to the specification and satisfaction of the Local Government.’

28. Clause 5.5.16.1 – replace “Single Houses” with ‘Grouped Dwellings’.

29. Clause 5.5.16.4 – replace “complies with an endorsed Local Planning Strategy prepared in accordance with Statement of Planning Policy 2.5 – Agriculture and Rural Land Use Planning.”

with

‘is in accordance with one of the exceptional circumstances outlined in the Western Australian Planning Commission’s *Development Control Policy 3.4 – Subdivision of Rural Land*.’

30. Sub-clause 5.5.18.2.2(b) – replace “20” with ‘15’ in bullet point two.

31. Clause 5.5.18.2.2 – replace sub-clauses ‘(i)’ and ‘(j)’ with the following:

‘(i) Water for fire fighting purposes shall be made available by the installation of fire hydrants connected to the Water Corporation reticulated water supply.’

32. Clause 5.5.18.2.14(a) – replace “Rural Residential” with ‘Special Residential’.

33. Sub-clause 5.5.18.2.14(a)(ii) – replace “Schedule 16” with ‘Schedule 15’.

34. Section 5.5.13 Special Residential Zone – insert new clause as follows:

‘5.5.18.4 Subdivision

Prior to supporting the subdivision of areas within the Special Residential zone, not already the subject of an endorsed subdivision guide plan, the Local Government shall require a land capability assessment to be undertaken and an overall subdivision guide plan to be prepared for adoption by the Local Government in accordance with Part 2 of the Scheme and endorsement of the Western Australian Planning Commission.’

35. Table 7: Site Requirements – insert a new row between “Caravan Park” and “Regional Centre” with ‘Clubs and Institutions’ in the Zone column; ‘0.5’ in the Max. Plot Ratio column; ‘11’ in the Min. Setbacks (metres) – Front column; ‘7.5’ in the Min. Setbacks (metres) – Rear column; and ‘3’ in the Min. Setbacks (metres) – Side column.
36. Table 8: Landscaping Requirements – insert a new row between “Caravan Park” and “Regional Centre” with ‘Clubs and Institutions’ in the Zone column and ‘10’ in the Landscaping Area (% of site) column.
37. Clause 5.9.1.3 – insert the word ‘of’ following the word “preparation”.
38. Clause 5.9.1.3.1 – replace
- “The local government requires a Structure Plan for a Structure Plan Area, or for any particular part or parts of a Structure Plan Area, before recommending subdivision or approving development of land within the Structure Plan Area.”
- with
- ‘Subject to clause 5.5.3.2, as it applies to Future Urban zoned land, the Local Government shall not recommend subdivision or approve development of land within a Structure Plan Area, prior to the adoption of a Structure Plan under clause 5.9.1.5 of the Scheme for that Structure Plan Area, or any particular part or parts of that Structure Plan Area.’
39. Sub-clause 8.2(b) – replace “Note” with ‘Notes’ at the end of clause 8.2; insert ‘1.’ Before “Development carried out in accordance with a subdivision approval granted by the Commission is exempt under the Planning and Development Act 2005”; and insert a new note as follows:
- ‘2. Prior to lodging a formal application for planning approval, details of any proposed minor works shall be submitted in writing to the Local Government, so that it may be determined if they are exempt from requiring the formal planning approval of the Local Government.’
40. Sub-clause 8.2(d) – insert ‘the’ following the words “Part 6 of” in part (ii); delete the word “or” from the end of part (iii); replace the full stop at the end of part (iv) with ‘; or’; and insert a new part as follows:
- ‘(v) The subject of sub-clause 5.6.2(d)(ii)(e) of the Scheme.’
41. Schedule 1, Part 2 – Land Use Definitions – insert a new land use definition between “**holiday accommodation**” and “**home business**” as follows:
- ‘**holiday house** means a single dwelling on one lot used to provide short-term accommodation for not more than 6 persons but does not include a bed and breakfast/farmstay, a boarding/guest/lodging house, a chalet/cottage unit, or holiday accommodation.’
42. Schedule 1, Part 2 – Land Use Definitions – insert ‘not’ into part (v) of the definition of “**home occupation**”.
43. Schedule 1, Part 2 – Land Use Definitions – replace the words “hires” and “provides” with ‘hire’ and ‘provide’ in the definition of “**shop**”.
44. Schedule 1, Part 2 – Land Use Definitions – insert a new land use definition between “**single house**” and “**storage**” as follows:

'small bar means premises the subject of a small bar licence granted under the Liquor Control Act 1988.'

45. Schedule 2 – Additional Uses, No. AU8 – replace “Portion Lot 30 Nanarup Road, Kalgan” in the Description of Land column with ‘Lot 32 Nanarup Road, Kalgan’.
46. Schedule 4 – Special Use Zones, No. SU15 – insert ‘Tavern ‘D’ and ‘Small Bar ‘D’ into the “Special Use” column under “Entertainment Precinct”; ‘Holiday Accommodation ‘D’, ‘Hotel ‘D’, ‘Small Bar ‘D’ and ‘Tavern ‘A’ into the “Special Use” column under “Accommodation Precinct”; ‘Holiday Accommodation ‘D’, ‘Small Bar ‘D’ and ‘Tavern ‘A’ into the “Special Use” column under “Commercial Precinct”; and ‘Small Bar ‘D’ and ‘Tavern ‘A’ into the “Special Use” column under “Town Jetty”.
47. Schedule 12 – Conservation Zone Provisions, No. CZ1, provision 3.1 – bullet point “Caretaker’s Accommodation” at the beginning of the second paragraph and replace the bullet points before the subsequent sub-provisions under with letters (a-f).
48. Schedule 12 – Conservation Zone Provisions, No. CZ1, provision 4.5 – replace “as as an archaeological assessment” with ‘and an archaeological assessment’ and replace

“Should such species or sites be identified, the Local Government shall require the selection of an alternative species or sites be identified. The Local Government shall require the selection of an alternative Development Area or the modification of the Development Area so as to protect said sites or rare, endangered and/or threatened species.”

with

“Should such species or sites be identified, the Local Government shall require the selection of an alternative Development Area or the modification of the Development Area so as to protect said sites or rare, endangered and/or threatened species.”
49. Schedule 12 – Conservation Zone Provisions, no. CZ1, sub-provision 5.6(ii) – replace “approval of a development” with ‘approval for the development of a dwelling’.
50. Schedule 14 – Rural Residential Zone No. RR29, sub-provision 5(a) – replace “40 metres from any front boundary” with ‘40m from Roberts Road’.
51. Schedule 14 – Rural Residential Zone No. RR29, provision 8 – relocate existing provision 8 under provision 5 and renumber as provision 6; renumber existing provisions 6 and 7 as provisions 7 and 8 respectively.
52. Schedule 14 – Rural Residential Zone No. RR30, provision 4, bullet point 5 – replace “the provisions under “4.0” below” with ‘the provisions of clause 5.5.13.2.8 of the Scheme’ and replace “Clause 5.1” with ‘provision 6(a) below’.
53. Schedule 14 – Rural Residential Zone No. RR35, sub-provision 6(c) – replace “Lot 410” with ‘Lot 401’.
54. Schedule 15 – Special Residential Zone No. SR8, provision 4 – insert a new bullet point and ‘Holiday House’ under “The following land uses are ‘D’ discretionary uses”.

Altering various parts of the Scheme Maps to correct identified anomalies and errors, and to rezone some portions of land to reflect recent changes in cadastral boundaries and associated land use as follows:

1. Map 4 – return a portion of Lot 200 Kitson Street and Reserve 30599 Roundhay Road, Gledhow from the Parks Recreation local scheme reserve to the General Industry zone and a portion of adjoining Lot 0 from the Parks and Recreation local scheme reserve to the Local Roads local scheme reserve.

2. Map 5 – transfer Reserve 25385 Drummond Street, Lockyer from the Parks and Recreation local scheme reserve to the Clubs and Institutions zone.
3. Map 5 – transfer Lot 49 Stead Road, Centennial Park from the Local Road local scheme reserve to the Regional Centre Mixed Business zone.
4. Map 8 – include the designation ‘IA1’ on Lot 392 Chester Pass Road, Walmsley (Ardess Industrial Estate).
5. Map 12 – replace the designation “RR1” on the Millbrook Rural Residential area with ‘RR3B’.
6. Map 12 – transfer Lot 4440 Pony Club Road, Willyung from the Parks and Recreation local scheme reserve to the Special Residential zone.
7. Map 13 – return portions of Lot 12 Bushby Road and Lots 21, 23, 24 and 25 Shell Bay Road, Lower King from the Residential zone to the Parks and Recreation local scheme reserve.
8. Map 14 – rezone a portion of Lot 33 Nanarup Road, Kalgan from the General Agriculture zone and Additional Use Site No. AU8 to the Rural Residential zone and a portion of Lot 32 Nanarup Road, Kalgan from the Rural Residential zone to the General Agriculture zone and Additional Use Site No. AU8.
9. Map 20 – rezone Lot 2 Station Street, Youngs Siding from the Residential zone to the Local Centre zone.
10. Map 30 – replace the designation “1C” on the Cape Riche Rural Residential area with ‘RR1C’.
11. Map 36 – transfer a portion of Lot 214 Parker Brook Road, Drome from the General Agriculture zone to the Public Use local scheme reserve.
12. Maps 37, 40 and 41 – include a Public Drinking Water Sources Special Control Area boundary around the Angove Creek Public Drinking Water Source Area.

PLANNING AND DEVELOPMENT ACT 2005
CITY OF ALBANY
LOCAL PLANNING SCHEME No. 1
AMENDMENT No. 13
ADOPTION

Adopted by resolution of the City of Albany at the meeting of the Council held on the _____ day of _____ 2015

Mayor

Chief Executive Officer

FINAL APPROVAL

Adopted for final approval by resolution of the City of Albany at the Meeting of the Council held on the _____ day of _____ 20__ and the Common Seal of the City of Albany was hereunto affixed by the authority of a resolution of the Council in the presence of:

Mayor

Chief Executive Officer

Recommended/Submitted for Final Approval

Delegated Under S.16
of the PD Act 2005

Date

Final Approval Granted

Minister for Planning

Date

APPENDIX 1

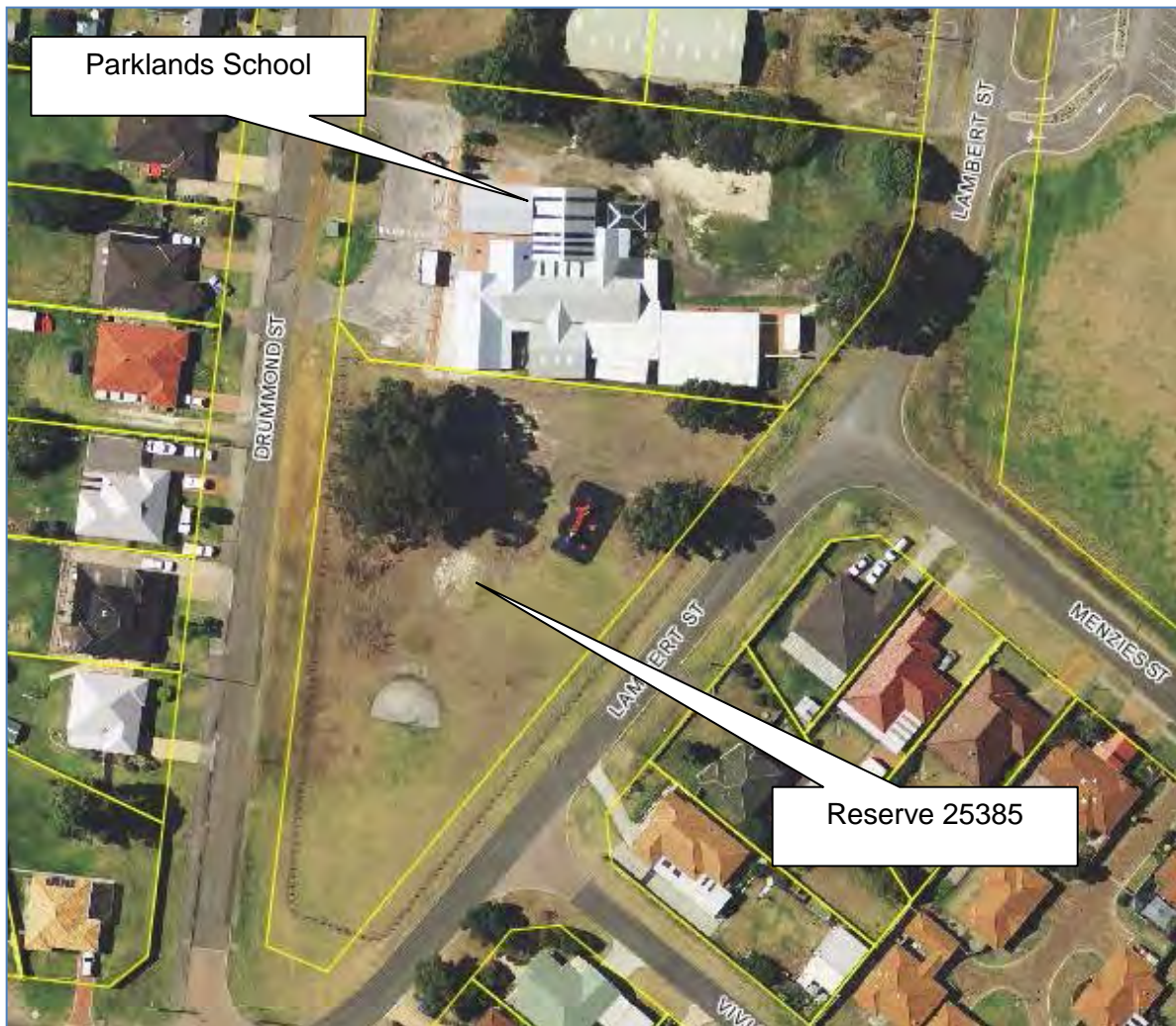
MINUTE OF ORDINARY MEETING OF COUNCIL 19 MARCH 2013 – ITEM 4.5

MINUTE OF ORDINARY MEETING OF COUNCIL 16 JULY 2013 – ITEM 4.5

4.5: PROPOSED ACQUISITION AFFECTING RESERVE 25385 TO ALLOW FOR THE EXPANSION OF PARKLANDS SCHOOL

Land Description	: Lot 6702 Reserve 25385 No 22-30 Drummond Street, Lockyer
Proponent	: Parklands School Association
Owner	: Crown Land, vested in City of Albany
Attachments	: Proposed Site Plan
Responsible Officer(s)	: Executive Director Corporate Services (G Adams)

Maps and Diagrams:



IN BRIEF

- Council is requested to consider the application by Parklands School to purchase or lease part of the adjoining Reserve 25385 to allow the expansion of the school's recreation area and to provide future additional building space.

ITEM 4.5: RESOLUTION**VOTING REQUIREMENT: SIMPLE MAJORITY****MOVED: COUNCILLOR CALLEJA****SECONDED: COUNCILLOR GREGSON****THAT Council:**

1. **AGREES** to revoke the management order for Reserve 25385 held by the City of Albany, pursuant to section 50 of the *Land Administration Act 1997*;
2. **REQUESTS** that, pursuant to sections 51 and 74 of the *Land Administration Act 1997*, the Minister for Lands cancel Reserve 25385 and dispose of the land to the City of Albany, under the provisions of the Government Land Policy – Section 20A Public Recreation Reserves;
3. **AGREES** to pay the land costs associated with the section 20A disposal of this Reserve 25385, subject to those moneys being reimbursed by the Parklands School Association;
4. **DELEGATES** authority to the Executive Director Corporate Services, subject to no objections being received during the required public consultation period, to forward these requests to the Minister for Lands and to finalise all dealings on this matter in conjunction with the Department for Regional Development and Lands and the Parklands School;
5. **APPROVES** a lease and licence arrangement to the Parklands School Association for the use of the land currently known as Crown Reserve 25385 and being Lot 6703 on Deposited Plan 190893, subject to the following terms and conditions:
 - a. The Parklands School observing all the agreed financial arrangements, as follows:
 - Parklands School to cover the City's land purchase costs in acquiring this reserve from the State of WA;
 - The City will cover the administration costs and fees associated with the 20A disposal process;
 - Parklands School will own any buildings or improvements constructed in the leasehold area, though removal will be required once the lease is terminated;
 - Parklands School will be responsible for all fees and charges associated with preparing the lease and licence documentation, including any legal and survey costs.
 - b. The lease term being 15 years, with a 10 year option, commencing once the land is held in freehold title by the City of Albany;
 - c. Lease rental being a peppercorn rate of \$10.00 plus GST annum;
 - d. Lease area being approximately 1200m² for the purpose of Educational Establishment;
 - e. Licence area being approximately 3543m² for the purpose of Public Open Space and being maintained by the Parklands School, to the satisfaction of the City of Albany;

- f. **All costs associated with the development, maintenance and operation of the lease and licence to be payable by the Parklands School**
- g. **The lease and licence being consistent with Council Policy – Property Management: Leases and Licences.**

CARRIED 12-0**BACKGROUND**

1. The Parklands School has recently approached the City of Albany with the view to acquiring additional land from the adjoining Reserve 25385. This land will be used for the purposes of providing additional space for the reconfiguration of the existing school, allowing for building expansion and a greater land area for recreational use.
2. The school would like to acquire a 1200m² portion of Reserve 25385 by way of purchase of the land or through a lease arrangement between the City and the school.
3. Parklands School is situated on Lot 6702 No 32-36 Drummond Street, Lockyer, which is a Crown Grant in Trust for the purposes of 'School Site'. This land was granted by the State of WA to Parklands School in 1993 to allow for the development and future operation of the school.
4. Reserve 25385 is a 'C' class reserve vested in the City of Albany for the purposes of "Children's Playground". While there were previously play facilities on this land, they were removed in 2011, as they were badly vandalised and in need of replacement. There is no play equipment on this land at present.

DISCUSSION

5. While it is acknowledged that the Parklands School requires additional space, some concerns are raised with 'dividing' the adjoining Reserve 25385 to allow this to occur. This would reduce the area of the reserve to 3543m² and the City would then be responsible for maintaining a park which would be too small to be developed for any usable recreational purpose, other than as a local park.
6. On this basis, options have been explored for the School to take over the whole of Reserve 25385, including the possible revocation of the City's management order for this land and the re-vesting of the land in Parklands School.
7. This matter was discussed with the Department for Regional Development and Lands and they advised that they would not consider the option of vesting the land in the school, because there is no means by which the Department can monitor the future use and maintenance of the land in this circumstance and it sets an undesirable precedent for other community based organisations to seek similar arrangements.
8. The Department did advise that they would be willing to consider the disposal of the Reserve to the City, under the Section 20A Public Recreation Reserves Policy, such that the land was then held in freehold title by the City and the City could then manage it as it wished. (This is a Policy Statement of the Government Land Policy Manual, maintained by the Department for Regional Development and Lands).

Note: The reference to a section 20A reserve refers to the section of the previous Town Planning and Development Act 1928, which stated that on a plan of subdivision, any land shown on a diagram or plan as being reserved for the purpose of recreation shall be vested in the Crown without the payment of any fee or the need to transfer that land. These recreation reserves are known as "20A reserves" because that is the basis on how they were transferred to the Crown.

Impact of Section 20A Public Recreation Reserves Policy

9. The Section 20A Public Recreation Reserves Policy requires that a Local Government justify the disposal of the public recreation land, providing the reasons for wanting to dispose of the land. In addition, the Policy states that any proceeds from the undertaking be used to either purchase replacement public open space in a more appropriate location or that the funds be applied to capital improvements in other recreation reserves in the general locality. It is noted that the City will not be financially gaining from this land deal and as such, this aspect of the Policy does not apply.
10. This Reserve 25385 is not of a sufficient size or shape to justify significant expenditure on behalf of the City, both in terms infrastructure development and future maintenance, particularly if portion of the land is to be used by the school. It is maintained as a local neighbourhood park only. In addition, there is a significant recreation area immediately adjoining Reserve 25385 and Parklands School, being Weelara Lake Park. This adjoining Reserve 25382 is approximately 3.5 hectares in area and has been the site of Council expenditure to beautify this park and to improve infrastructure provision, including new play facilities.
11. It is not proposed that this Reserve 25385 be disposed of in its entirety. The aim is to modify the land tenure to provide the City management rights to permit the school to use portion of this land for their needs. Given the Department for Regional Development and Lands stance, there seems little option available to the City other than to consider a 20A disposal which means the land will be held in freehold title by the City and it can then be leased and licensed to Parklands School.
12. It is noted that the Section 20A Public Recreation Reserves Policy does not support granting leasing powers in 20A public recreation reserves to avoid private interests being given over such land. As such, the Department is unlikely to support the option of granting the City leasing powers over Reserve 25385, which is why the disposal of the land has been suggested by them.
13. The Section 20A Public Recreation Reserves Policy also carries requirements regarding public consultation and financial arrangements which will be addressed in later sections of this report.

Proposed Use of Land

14. It is proposed that majority of the land, outside of the specified leasehold area, be maintained as public open space and will be licensed, as opposed to leased, to the school so that they do not have exclusive rights to this land. Low height, visually permeable fencing

could be considered, to address safety concerns when being used by the school children, however it is recommended that this space remains open to the public for general use.

15. The lease over an area of 1200m² adjacent to the school provides space for future expansion that may be used exclusively by the school and fenced for security. It is understood the Parklands School will be used this area to reconfigure the layout of the school, with existing transportable buildings being relocated to both provide a more formal entry to Drummond Street and an improved recreational space east of the school buildings (please refer to Proposed Site Plan attached to this report).
16. The lease / licence arrangement aims to address the potential concerns of nearby landowners who may object to the loss of their outlook onto public open space. In addition, the school will be required, as part of the licence arrangement, to maintain the park area and the City does not then need to maintain this small portion of public open space.

Arrangements with Parklands School

17. An initial proposal for the future use of this Reserve 25385 has been put to the school. This proposal considers the requirements of the City's Property Management: Leases and Licences Policy, the costs associated with the both the 20A disposal and the lease/licence arrangement and the potential impact on the nearby community. The financial arrangements will be further clarified in the Financial Implications section of the report.
18. In meetings with City officers, the Parklands School have agreed to the terms and conditions of the lease / licence arrangement as proposed, including the financial arrangements, the terms of the lease, the maintenance of the licence area as public open space etc.

Planning Considerations

19. This Reserve 25385 is reserved for Parks & Recreation under the City of Albany Town Planning Scheme No 1A and will be similarly zoned under the proposed Local Planning Scheme No 1.
20. The development of portion of this land for the school's expansion may require changes to the Town Planning Scheme, as the proposed leasehold is not considered consistent with the Parks and Recreation reservation of the land. Given the current embargo on scheme amendments, the City is exploring the option of modifying the reservation of the proposed leasehold area to Public Use, which will allow for the proposed school development, as part of the adoption of the new Local Planning Scheme.

GOVERNMENT CONSULTATION

21. This matter has been discussed in detail with officers of the Department for Regional Development and Lands, as any possible outcome to support the school's request would require the support of this department and the Minister for Lands. The advice of this department has been detailed in the Discussion section of this report.

PUBLIC CONSULTATION / ENGAGEMENT

22. The provisions of the Section 20A Public Recreation Reserves Policy Statement require that public consultation be undertaken, including the signposting of the reserve, advertising in local newspapers and canvassing of nearby landowners.
23. Should Council support the recommendation of this report, the public consultation processes will be initiated. If objections to the proposal are received, a further item will be presented to Council for consideration.

STATUTORY IMPLICATIONS

24. Section 18 of the *Land Administration Act 1997* states that a person shall not deal with interest in Crown Land or lease or licence Crown land without the prior approval of the Minister of Lands.
25. Section 50 of the *Land Administration Act 1997* allows the Minister for Lands to revoke a management order for a Crown Reserve where the management body agrees that it should be revoked. The City of Albany is the management body for the subject reserve.
26. Section 51 of the *Land Administration Act 1997* allows the Minister for Lands to cancel a reserve.
27. Section 74 of the *Land Administration Act 1997* allows the Minister for Lands to sell Crown land.
28. Section 20A of the previous *Town Planning and Development Act 1928* stated that on a plan of subdivision, any land shown on a diagram or plan as being reserved for the purpose of recreation (or any other public use) shall be vested in the Crown without the payment of any fee or the need to transfer that land.
29. In enacting the above provisions of the *Land Administration Act 1997*, the Department for Regional Development and Lands will have regard to the Government Land Policy Manual, which includes Policy 04.01.05 Section 20A Public Recreation Reserves. The Policy sets the considerations, process and financial arrangements for the disposal of 20A reserves and has been detailed in relevant sections throughout this item.
30. Section 3.58 of the *Local Government Act 1995* deals with the disposal of property, including the lease of property.

STRATEGIC IMPLICATIONS

31. This item relates directly to the following elements of the City of Albany Strategic Plan (2011-2021):

Key Focus Area

Community Focussed Organisation

Community Priority

Support for Community Groups

Proposed Strategies

Support community groups by identifying funding opportunities.

POLICY IMPLICATIONS

32. Council's Policy – Property Management: Leases and Licences applies to this item. Under this policy, Parklands School is considered to be a community group, as it is an incorporated charitable fund. The provisions of the policy relevant to this item are as follows:

- a. The maximum tenure of a lease or licence on freehold land will be at the discretion of Council;
- b. The City may enter into a lease or licence with incorporated bodies;
- c. Rent for community groups leasing land for community purposes will be a peppercorn rental of \$10 plus GST per annum (no City buildings on the land);
- d. The lessee must reimburse the City for all reasonable costs incurred in the development and implementation of the lease or licence.

The proposed lease / licence arrangement will comply with all other standard conditions specified in this policy document.

33. It is noted that under this policy, should any buildings be constructed on the land, the school will own these buildings however they will need to be removed at the termination of the lease. The School has been advised of this requirement.

RISK IDENTIFICATION & MITIGATION

34. The risk identification and categorisation relies on the City's Risk Management Framework:

Risk	Likelihood	Consequence	Risk Rating	Mitigation
<i>If this proposal is not supported, the school will remain constrained on their existing site and the City will continue to be responsible for the maintenance of Reserve 25385.</i>	<i>Possible</i>	<i>Moderate</i>	<i>Medium</i>	<i>Council supports the recommendation to seek the disposal of Reserve 25385 to the City and lease / licence the land to Parklands School.</i>

FINANCIAL IMPLICATIONS

35. The Section 20A Public Recreation Reserves Policy states that the disposal of a 20A reserve to local government shall be on the basis of payment to the Department of Regional Development and Lands of \$500 or 5% of the unimproved market value, as advised by the Valuer General, whichever is the greater.
36. While the unimproved market value cannot be determined until such time as the formal request is sent to the Department for Regional Development and Lands and they initiate a valuation through the Valuer Generals, an estimate has been sought for discussion purposes. A value of \$238,000 has been applied to this land for the Office of State Revenue's Land Tax purposes and has been used as the basis for determining the 5% fee.
37. The action of obtaining the freehold title of Reserve 25385 may cost the City in the order of \$12,000 plus administrative costs and any associated fees. However, this action is not something the City would pursue if the request had not been received from Parklands School. As such, the following financial arrangement has been suggested to the school:
- a. The school to cover the City's costs in purchasing this reserve from the State (estimated \$12,000, though this is dependent upon the final valuation);
 - b. The City, as a goodwill gesture, has offered to cover the administration costs and fees associated with the action (as most of these costs are in kind works on the City's behalf);
 - c. A lease term of 15 years, with a 10 year option, at a peppercorn rental of \$10 per year (plus GST) is offered to the school for the use of Reserve 25385; and
 - d. The school will be responsible for all fees and charges associated with setting up the lease / licence arrangement, being approximately \$3,000 (survey and legal fees).
38. The Parklands School have agreed to this financial arrangement.

LEGAL IMPLICATIONS

39. Provided that this action meets all of the relevant legislative requirements, there are no legal implications relevant to this item.

ALTERNATE OPTIONS

40. Council may:
- a. Pursue the disposal of Reserve 25385 so that it then owns the land in freehold title and may lease / licence the land to Parklands School, allowing them to use portion of this land exclusively and securing the maintenance of the remainder of the land as public open space; or
 - b. Refuse the Parkland's School to utilise portion of the adjoining Reserve 25385.

SUMMARY CONCLUSION

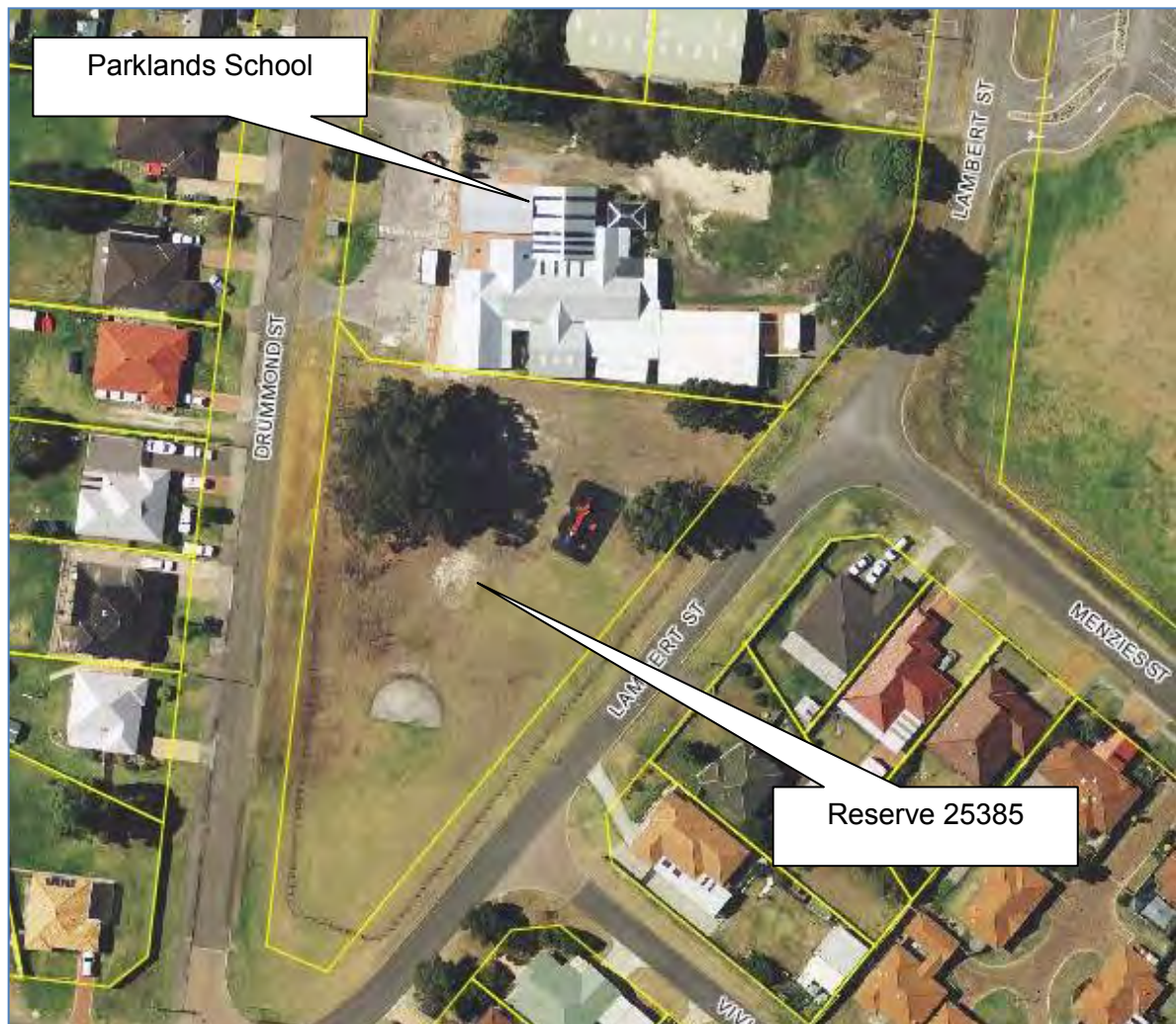
41. Reserve 25385 serves the function of small local neighbourhood park, however it is not of a sufficient size or shape to justify significant expenditure by Council, particularly given that it adjoins a well developed regional park (Weelara Lake Park).
42. Parklands School requires additional land for its future requirements. This land will be used for the reconfiguration of the school, providing a more formal entry to Drummond Street and a greater area for recreational use.
43. The City has discussed the options available to the school with the Department for Regional Development and Lands and they generally support the disposal of this reserve so that the City owns it in freehold title and it may then be managed as it wishes. This action may cost the City approximately \$12,000 in land purchase costs, however the school has agreed to reimburse the City this expense.
44. Once the City controls the land, a lease and licence arrangement is proposed to meet the needs of the school, while minimising impacts on nearby residents and in line with the City's Property Management: Leases and Licences Policy. Again, the school has agreed to pay all costs associated with this action.
45. As such, it is recommended that the Council support the recommended actions to assist the Parklands School to secure additional land area.

Consulted References	:	Land Administration Act 1997 Government Land Policy Manual Planning and Development Act 2005
File Number (Name of Ward)	:	A120096
Previous Reference	:	No previous references

4.5: PROPOSED ACQUISITION AFFECTING RESERVE 25385 TO ALLOW FOR THE EXPANSION OF PARKLANDS SCHOOL – OUTCOMES FROM PUBLIC CONSULTATION

- Land Description** : Lot 6702 Reserve 25385 No 22-30 Drummond Street, Lockyer
- Proponent** : Parklands School Association
- Owner** : Crown Land, vested in City of Albany
- Attachments** :
 - Attachment No 1 - Proposed Site Plan
 - Attachment No 2 – Correspondence received from Parklands School Board, 5 June 2013
- Responsible Officer(s)** : Executive Director Corporate Services (G Adams)

Maps and Diagrams:



IN BRIEF

- Council, at its meeting held on 19 March 2013, considered and supported a proposal to lease and licence Reserve 25385 Drummond Street, Lockyer to allow for the future expansion of Parklands School.
- As part of the land administration processes that must occur to permit the lease / licence arrangement with the school, the proposal was advertised for public comment.
- Council is now requested to consider the submissions received during the advertising period and the impact this may have on the previous lease and licence arrangement.

**ITEM 4.5: RESPONSIBLE OFFICER RECOMMENDATION
VOTING REQUIREMENT: SIMPLE MAJORITY**

THAT Council amends its previous resolution of 19 March 2013 with the following modifications shown in red, as follows:

1. **AGREES** to revoke the management order for Reserve 25385 held by the City of Albany, pursuant to section 50 of the Land Administration Act 1997;
2. **REQUESTS** that, pursuant to sections 51 and 74 of the Land Administration Act 1997, the Minister for Lands cancel Reserve 25385 and dispose of the land to the City of Albany, under the provisions of the Government Land Policy – Section 20A Public Recreation Reserves;
3. **AGREES** to pay the land costs associated with the section 20A disposal of this Reserve 25385, subject to those moneys being reimbursed by the Parklands School Association;
4. **DELEGATES** authority to the Executive Director Corporate Services, subject to no objections being received during the required public consultation period, to forward these requests to the Minister for Lands and to finalise all dealings on this matter in conjunction with the Department for Regional Development and Lands and the Parklands School;
5. **APPROVES** a lease and licence arrangement to the Parklands School Association for the use of the land currently known as Crown Reserve 25385 and being Lot 6703 on Deposited Plan 190893, subject to the following terms and conditions:
 - a. The Parklands School observing all the agreed financial arrangements, as follows:
 - Parklands School to cover the City's land purchase costs in acquiring this reserve from the State of WA;
 - The City will cover the administration costs and fees associated with the 20A disposal process;
 - Parklands School will own any buildings or improvements constructed in the leasehold area, though removal will be required once the lease is terminated;
 - Parklands School will be responsible for all fees and charges associated with preparing the lease and licence documentation, including any legal and survey costs.
 - b. The lease term being 15 years, with a 10 year option, commencing once the land is held in freehold title by the City of Albany;

ITEM 4.5: RESPONSIBLE OFFICER RECOMMENDATION (Continued)

- c. Lease rental being a peppercorn rate of \$10.00 plus GST annum;
 - d. Lease area being approximately 1200m² for the purpose of Educational Establishment;
 - e. Licence area being approximately 3543m² for the purpose of Public Open Space and being maintained by the Parklands School, to the satisfaction of the City of Albany;
 - f. The Parklands School observes the following requirements with regard to landscaping and maintenance of the reserve:
 - The existing trees on Reserve 25385 are to be retained;
 - Any maintenance and trimming of these trees shall be carried out by a licensed arborist;
 - A landscaping strip being installed in the licence area along the boundary of the lease area. The City shall be provided and must approve the details of the proposed landscaping strip prior to installation, including size, location, plant species to be used etc; and
 - Any drainage of the land shall be designed and installed to the City's satisfaction.
 - g. All costs associated with the development, maintenance and operation of the lease and licence to be payable by the Parklands School;
 - h. The lease and licence being consistent with Council Policy – Property Management: Leases and Licences.
6. Those persons having made a submission on the proposal being advised of the changes to Council's previous 19 March 2013 resolution.

CARRIED EN BLOC

BACKGROUND

1. The Parklands School approached the City of Albany with the view to acquiring an additional 1200m² portion of land from the adjoining Reserve 25385. The land will be used for the purposes of providing additional space for the reconfiguration of the existing school, allowing for building expansion and a greater land area for recreational use.
2. The Council considered this request at its meeting held on 19 March 2013 and resolved as follows:

THAT Council:

7. AGREES to revoke the management order for Reserve 25385 held by the City of Albany, pursuant to section 50 of the Land Administration Act 1997;
8. REQUESTS that, pursuant to sections 51 and 74 of the Land Administration Act 1997, the Minister for Lands cancel Reserve 25385 and dispose of the land to the City of Albany, under the provisions of the Government Land Policy – Section 20A Public Recreation Reserves;

9. AGREES to pay the land costs associated with the section 20A disposal of this Reserve 25385, subject to those moneys being reimbursed by the Parklands School Association;
 10. DELEGATES authority to the Executive Director Corporate Services, subject to no objections being received during the required public consultation period, to forward these requests to the Minister for Lands and to finalise all dealings on this matter in conjunction with the Department for Regional Development and Lands and the Parklands School;
 11. APPROVES a lease and licence arrangement to the Parklands School Association for the use of the land currently known as Crown Reserve 25385 and being Lot 6703 on Deposited Plan 190893, subject to the following terms and conditions:
 - a. The Parklands School observing all the agreed financial arrangements, as follows:
 - Parklands School to cover the City's land purchase costs in acquiring this reserve from the State of WA;
 - The City will cover the administration costs and fees associated with the 20A disposal process;
 - Parklands School will own any buildings or improvements constructed in the leasehold area, though removal will be required once the lease is terminated;
 - Parklands School will be responsible for all fees and charges associated with preparing the lease and licence documentation, including any legal and survey costs.
 - b. The lease term being 15 years, with a 10 year option, commencing once the land is held in freehold title by the City of Albany;
 - c. Lease rental being a peppercorn rate of \$10.00 plus GST annum;
 - d. Lease area being approximately 1200m² for the purpose of Educational Establishment;
 - e. Licence area being approximately 3543m² for the purpose of Public Open Space and being maintained by the Parklands School, to the satisfaction of the City of Albany;
 - f. All costs associated with the development, maintenance and operation of the lease and licence to be payable by the Parklands School;
 - g. The lease and licence being consistent with Council Policy – Property Management: Leases and Licences.
3. Council's previous resolution was based on the following:
- a. The dividing of Reserve 25385 to provide the school an area of 1200m² would only leave a useable area of 3543m², which is too small for any recreational use and would be a maintenance burden for the City;
 - b. The City explored options for Parklands School to take over the whole land area with the Department for Regional Development and Lands;

- c. The Department would only support the City taking over this land as a freehold title and then the future lease / licence arrangement would be at the City's discretion;
- d. In order to make this land freehold, the Section 20A Public Recreation Reserves Policy Statement would need to be observed;
- e. The Parklands School has indicated a willingness to reimburse the City the costs associated with the 20A disposal in order to facilitate a future lease & licence arrangement;
- f. The Parklands School had also agreed to the proposed terms of the lease / licence arrangement.

DISCUSSION

4. Following Council's March 2013 resolution, the proposed 20A disposal of Reserve 25385 was advertised for public comment. This included notices and articles in local newspapers, direct notification of all adjoining landowners, and the placement of signs on the reserve.
5. The advertising period closed on 3 May 2013 and two submissions were received. One of the submissions was signed by 28 signatories.
6. The submissions are summarised and addressed as follows:

- a. Submission 1

Supports the proposal provided that the existing trees on the reserve are retained.

In all negotiations with Parklands School, the City stressed the importance of retaining the existing trees on the reserve. An additional condition could be included in the lease and licence arrangement to ensure this occurs.

- b. Submission 2 (28 Signatories)

Raises no objections to the proposal however would like all existing trees on the reserve to be retained, additional trees being planted around the boundary of the reserve and a 5-10m nature strip being planted along the new expanded fence line to screen the impact of the school.

As mentioned above, the City has also sought the retention of all existing trees on site and an additional condition could be included to ensure this occurs.

The submission seeks a planting strip along the boundary of the new expanded school fence and this is considered to be a reasonable request. Additional planting in this park would improve its amenity while screening the school. Though, it is noted that the planting should remain low to allow surveillance of the school grounds. An additional condition could be included to consider this requirement.

7. Parklands School were advised of the matters raised in the public submissions and asked to provide comment. The school has since advised as follows:
 - a. The school will ensure that existing trees on the reserve are not in any way adversely affected by the expansion, and will be cared for in a sympathetic way to preserve their amenity value. Any trimming that may be required will only be done follow advice from a qualified Arborist;
 - b. The proposed fencing of the leased area will include a combination of 1.8m high fencing that will include some solid timber fencing and some palisade (swimming pool) type fencing. The objective is to provide fencing that is more attractive than the existing cyclone-mesh fencing;
 - c. A landscaping strip along the lease area boundary fence can be installed. Selected plants will vary in height and include a few tall shrubs and trees;
 - d. The land proposed to be leased to the school will initially be used for recreation purposes. Any future building on the land must await rezoning of the land and will require the further approval of Council;
 - e. The School will manage and maintain the balance of the Reserve (outside the leased and fenced area) in accord with Council's request, but has no plans to regularly use or fence that land;
 - f. Measures will be taken to improve drainage of the land and a new compensating basin established to a design in accord with the City's requirements; and
 - g. It is the School's intention to approach the proposed expansion in a sympathetic and community-sensitive manner.
8. It is clear from these statements that Parklands School intends on addressing the concerns raised in the public submissions, though minor changes to the previous Council resolution are proposed to impose these requirements and ensure they are carried out.

GOVERNMENT CONSULTATION

9. This matter has been discussed in detail with officers of the Department for Regional Development and Lands, as any possible outcome to support the school's request would require the support of this department and the Minister for Lands. Council has been previously advised of the feedback received from this department and this was taken into consideration in making the March 2013 resolution.

PUBLIC CONSULTATION / ENGAGEMENT

10. The provisions of the Section 20A Public Recreation Reserves Policy Statement require that public consultation be undertaken, including signposting of the reserve, advertising in local newspapers and canvassing of nearby landowners. All of these requirements were observed during the advertising period.
11. Both submissions received have been acknowledged and advised that a further item to Council will be presented.

STATUTORY IMPLICATIONS

12. Section 18 of the *Land Administration Act 1997* states that a person shall not deal with interest in Crown Land or lease or licence Crown land without the prior approval of the Minister of Lands.
13. Section 50 of the *Land Administration Act 1997* allows the Minister for Lands to revoke a management order for a Crown Reserve where the management body agrees that it should be revoked. The City of Albany is the management body for the subject reserve.
14. Section 51 of the *Land Administration Act 1997* allows the Minister for Lands to cancel a reserve.
15. Section 74 of the *Land Administration Act 1997* allows the Minister for Lands to sell Crown land.
16. Section 20A of the previous *Town Planning and Development Act 1928* stated that on a plan of subdivision, any land shown on a diagram or plan as being reserved for the purpose of recreation (or any other public use) shall be vested in the Crown without the payment of any fee or the need to transfer that land.
17. In enacting the above provisions of the *Land Administration Act 1997*, the Department for Regional Development and Lands will have regard to the Government Land Policy Manual, which includes Policy 04.01.05 Section 20A Public Recreation Reserves. The Policy sets the considerations, process and financial arrangements for the disposal of 20A reserves.
18. Section 3.58 of the *Local Government Act 1995* deals with the disposal of property, including the lease of property.

STRATEGIC IMPLICATIONS

19. This item relates directly to the following elements of the City of Albany Strategic Plan (2011-2021):

Key Focus Area

Community Focussed Organisation

Community Priority

Support for Community Groups

Proposed Strategies

Support community groups by identifying funding opportunities.

POLICY IMPLICATIONS

20. Council's Policy – Property Management: Leases and Licences applies to this item. Under this policy, Parklands School is considered to be a community group, as it is an incorporated charitable fund. The provisions of the policy relevant to this item are as follows:
- a. The maximum tenure of a lease or licence on freehold land will be at the discretion of Council;
 - b. The City may enter into a lease or licence with incorporated bodies;
 - c. Rent for community groups leasing land for community purposes will be a peppercorn rental of \$10 plus GST per annum (no City buildings on the land);
 - d. The lessee must reimburse the City for all reasonable costs incurred in the development and implementation of the lease or licence.

The proposed lease / licence arrangement will comply with all other standard conditions specified in this policy document.

21. It is noted that under this policy, should any buildings be constructed on the land, the school will own these buildings however they will need to be removed at the termination of the lease. The School has been advised of this requirement.

RISK IDENTIFICATION & MITIGATION

22. The risk identification and categorisation relies on the City's Risk Management Framework:

Risk	Likelihood	Consequence	Risk Rating	Mitigation
<i>If this proposal is not supported, the school will remain constrained on their existing site and the City will continue to be responsible for the maintenance of Reserve 25385.</i>	<i>Possible</i>	<i>Moderate</i>	<i>Medium</i>	<i>Council supports the modified recommendation to seek the disposal of Reserve 25385 to the City and lease / licence the land to Parklands School.</i>
<i>The City does not adequately consider the views of the community and allows the school to proceed without taking into account the suggestions made by adjoining owners.</i>	<i>Possible</i>	<i>Moderate</i>	<i>Medium</i>	<i>The previous Council resolution be modified to take into account the views of the community regarding the retention of trees and landscaping to screen the impact of the expanded school.</i>

FINANCIAL IMPLICATIONS

23. The Section 20A Public Recreation Reserves Policy states that the disposal of a 20A reserve to local government shall be on the basis of payment to the Department of Regional Development and Lands of \$500 or 5% of the unimproved market value, as advised by the Valuer General, whichever is the greater. The action of obtaining the freehold title of Reserve 25385 has been estimated at \$12,000 plus administrative costs and associated fees.

24. Parklands School agreed to cover the City's costs to proceed with the 20A disposal and this was included as a condition of the lease and licence arrangement. As a goodwill gesture, the City offered to cover the administration costs and fees associated with the action, as most of these costs would be in kind works.

LEGAL IMPLICATIONS

25. Provided that this action meets all of the relevant legislative requirements, there are no legal implications relevant to this item.

ALTERNATE OPTIONS

26. Council may:
- a. Acknowledge the public submissions received and decide not to make any changes to the previous March 2013 resolution; or
 - b. Amend the previous March 2013 resolution to include additional requirements to retain the existing trees on site and install a landscaping strip along the lease area fence line, within the proposed licence area.

SUMMARY CONCLUSION

27. Council has previously supported the recommended lease and licence arrangement over Reserve 25385, following its disposal to the City, to assist the Parklands School to secure additional land area.
28. The City has observed the public consultation processes required under the Section 20A Public Recreation Reserves Policy and two submissions from adjoining landowners were received. These submissions do not object to the proposed expansion, but rather seek that measures are taken to maintain the appearance of the existing park and to minimise the impact of the expanded school.
29. The Parklands School has had an opportunity to comment on the concerns raised in the public submission and has the intent to ensure the proposed expansion is undertaken in a sympathetic and community sensitive manner.
30. Minor modifications to Council's previous 19 March 2013 resolution are proposed to ensure that the requirements to retain the existing trees and install a landscaping strip are imposed accordingly.

Consulted References	:	Land Administration Act 1997 Government Land Policy Manual Planning and Development Act 2005
File Number (Name of Ward)	:	A120096
Previous Reference	:	OCM 19/03/2013 Item 4.5

Attachment 2 – Albany Local Planning Strategy Excerpts

Section 8.3.1 Strategic Settlement Direction

Section 8.3.1 *Strategic Settlement Direction* of the *Albany Local Planning Strategy 2010* (ALPS) sets the following strategic objective:

“Facilitate and manage sustainable settlement growth for the urban area in the City of Albany”

The ALPS sets out the following aims to achieve this objective:

“The ALPS aims to contain the spread of fragmented urban and rural living areas in the City by:

- *Providing for growth in urban areas, rural townsites and rural living areas as designated in ALPS.*
- *Minimising the development footprint on the landscape to help protect biodiversity and the environment.*
- *Promoting energy conservation.*
- *Providing greater housing choice.*
- *Minimising journey length from home to work/school/services and encouraging the use of public transport, cycling and walking.*
- *Reducing government expenditure on servicing current and future populations.”*

Section 8.3.5 Rural Living

Section 8.3.5 *Rural Living* of the ALPS sets the following strategic objectives:

“In the long term encourage the efficient use of existing rural living areas, based on land capability to maximise their development potential.”

“Ensure that future rural living areas are planned and developed in an efficient and co-ordinated manner by being located either adjacent to Albany as designated on the ALPS maps, or within existing rural townsites in accordance with Table 5 along with adequate services and community infrastructure.”

The ALPS expands on this by stating that *“The strategy’s objectives for Rural Living areas are to:*

- *Discourage the creation of additional rural townsites for living purposes.*
- *Avoid the development of Rural Living areas on productive agricultural land, other important natural resource areas and areas of high bushfire risk, flooding and environmental sensitivity.*
- *Avoid the development of Rural Living areas on future and potential long-term urban areas.*
- *Provide compact growth of selected existing rural townsites in accordance with Table 4, based on land capability and available services and facilities.*
- *Minimise potential for generating land-use conflicts.”*

CITY OF ALBANY

LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 6

MINISTER FOR PLANNING

PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

LOCAL AUTHORITY:	CITY OF ALBANY
DESCRIPTION OF LOCAL PLANNING SCHEME:	LOCAL PLANNING SCHEME No. 1
TYPE OF SCHEME:	DISTRICT SCHEME
SERIAL No. OF AMENDMENT:	AMENDMENT No. 6

PROPOSAL:

- i. To rezone Lot 105 and a portion of Lot 106 Nanarup Road, Lower King, from the 'General Agriculture' zone to the 'Special Residential' zone (SR10).*
- ii. To transfer portion of Lot 106 Nanarup Road, Lower King, from the 'General Agriculture' zone to the 'Parks and Recreation' Reserve.*

LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 6

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1. RESOLUTION
2. REPORT
3. EXECUTION

PLANNING AND DEVELOPMENT ACT 2005

**RESOLUTION DECIDING TO AMEND A
LOCAL PLANNING SCHEME**

CITY OF ALBANY

LOCAL PLANNING SCHEME No. 1

DISTRICT SCHEME

AMENDMENT No. 6

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

- i. Rezoning Lot 105 and a portion of Lot 106 Nanarup Road, Lower King, from the 'General Agriculture' zone to the 'Special Residential' zone (SR10).*
- ii. Transferring portion of Lot 106 Nanarup Road, Lower King, from the 'General Agriculture' zone to the 'Parks and Recreation' Reserve.*

Dated this _____ day of _____

CHIEF EXECUTIVE OFFICER

CITY OF ALBANY

LOCAL PLANNING SCHEME NO. 1

AMENDMENT NO. 6

**ADDITIONS TO SPECIAL RESIDENTIAL ZONE NO. 10
LOTS 105 & 106 NANARUP ROAD, LOWER KING**

PLANNING REPORT

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APPENDIX A: ENVIRONMENTAL REPORT – LAND ASSESSMENT PTY LTD

APPENDIX B: FIRE PLAN

1. INTRODUCTION

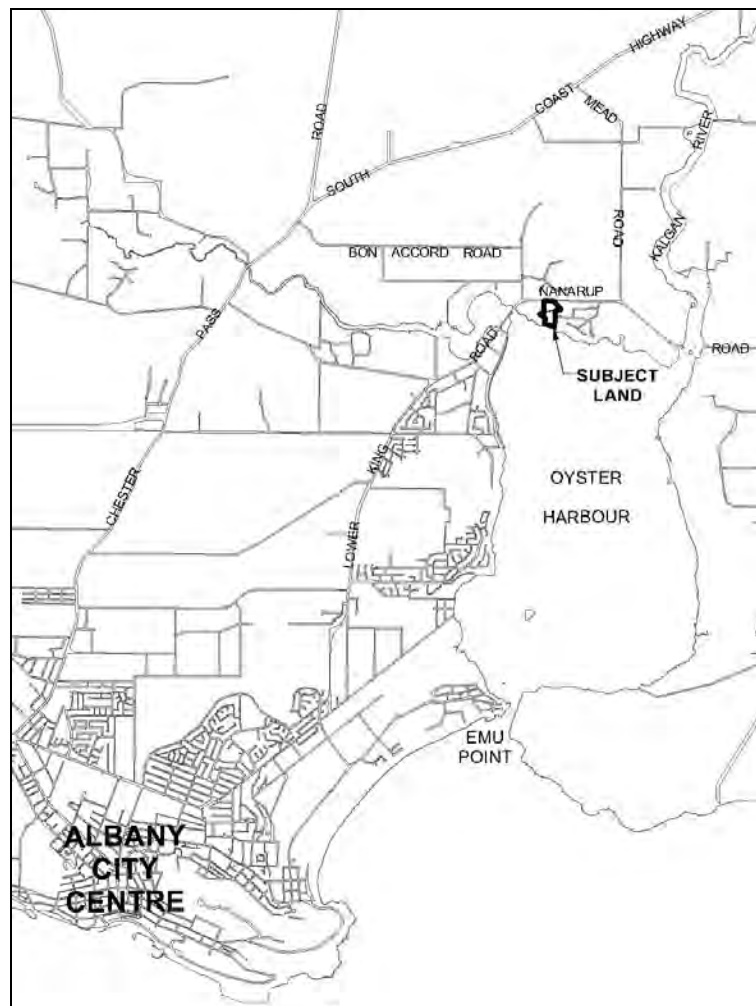
This Scheme amendment proposes to rezone Lots 105 & 106 Nanarup Road, Lower King, from the General Agriculture zone to the Special Residential zone and incorporate the land within Area No. 10 (SR10). A portion of Lot 106 is also to be transferred to the Parks and Recreation Reserve and serve as an addition to the adjoining reserve system.

This rezoning has been foreshadowed by the original rezoning and creation of Special Residential Zone Area No. 10 as well as the Albany Local Planning Strategy.

2. BACKGROUND

2.1 Location, Area & Zoning

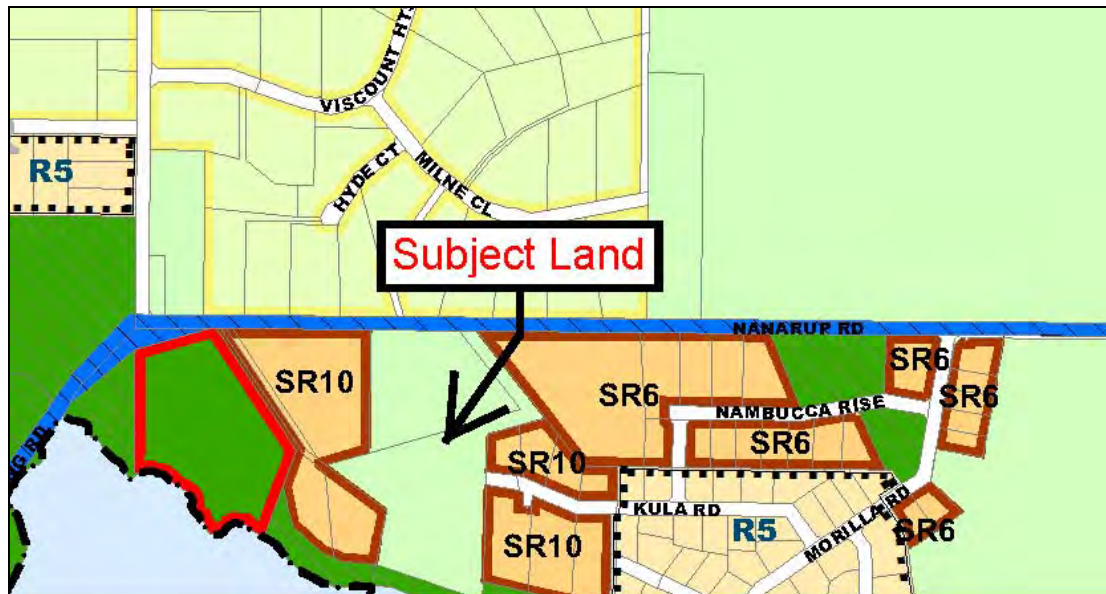
Lots 105 & 106 are situated 13km from the Albany City Centre and are accessed via Lower King Road and Nanarup Road.



Location Plan

Lot 105 is 2.73ha in area with Lot 106 comprising some 4.15ha.

Both lots are zoned General Agriculture and are surrounded by existing Special Residential development (east and west), the Oyster Harbour Foreshore (parks and recreation reserve to the south) and Nanarup Road and existing Special Rural development to the north.



Extract from LPS 1 Scheme map

2.2 Site Description

Lot 105 is mostly flat occupying a low hilltop at approx. 37mAHD. Lot 106 is located immediately south of Lot 105 and slopes gently to the south from approx. 35mAHD to 10mAHD flanking the Oyster Harbour Parks and Recreation Reserve.

Lot 105 and the northern majority of Lot 106 are open or attractively parkland cleared. The southernmost portions of Lot 106 are relatively good condition native regrowth of varying density and formation.

Both lots are currently used as high amenity rural retreats with well looked after landscaped parkland grounds. As well as substantial dwellings, both lots accommodate associated garaging and outbuildings. Lot 105 also accommodates a boutique hobby scale Textel Sheep Stud.

Both lots enjoy direct access to Nanarup Road via a long driveway (Lot 105) or a winding battleaxe (Lot 106).

2.3 Surrounding Land Use and Zoning

Immediately north of Nanarup Road is the Sheringa Park Special Residential Estate accommodating lots from 1ha in size. This is an established and quality development providing high amenity house sites in a spacious environment.

To the east and west is Special Residential Zone Area No. 10 (SR10) accommodating established lots from 4000m² in area. Further east, this zone melds into the Kalgan Heights residential zone which provides quality high amenity house sites from 2000m² in size.

South of the subject land is the Oyster Harbour foreshore and the associated reserve (reserve width ranges from 25m to 40m with an average of 30m).

The subject land is therefore the only land zoned "General Agriculture" in the immediate area and is clearly an anomaly given both the established surrounding landuses and the size of the subject two lots.

3. PLANNING CONTEXT

The key planning documents that relate to the subject land are the City of Albany's Local Planning Strategy (ALPS) and Local Planning Scheme No. 1 (LPSNo.1).

Along with these documents some context is provided by the original creation of Special Residential Zone Area No. 10 in Amendment No. 131 to then Shire of Albany Town Planning Scheme No. 3.

The Albany Local Planning Strategy identifies the land within a rural residential/special residential precinct and shown the land as suitable for rezoning and special rural subdivision and development.

Local Planning Scheme No. 1 identifies the land as "General Agriculture" and notes in cl4.2.20, the objectives to:

- "(a) Provide for the sustainable use of land for agricultural and rural activities;*
- (b) Support complementary land uses where those land uses do not detract from adjoining agricultural and rural activities and are compatible with the character and amenity of the area;*
- (c) Prevent land uses and development within the zone that may adversely impact on the continued use of the zone for agricultural and rural purposes;*
- (d) Provide for value-adding opportunities to agricultural and rural products on-site; and*
- (e) Provide for tourism experiences where those developments do not impact upon adjoining agricultural and rural land uses."*

Clearly the zoning, context and the objective of the current zone does not match the on ground realities of the land.

The Local Planning Scheme Special Residential Zone best suits the land and its subdivision potential. Objectives are;

- "To provide for large, spacious residential lots which—*
- (a) Removes the land from rural development pressures;*
- (b) Preserves and enhances the landscape quality and visual amenity of the locality;*
- (c) Provides for the protection of remnant vegetation, significant fauna/flora values, rivers, foreshore areas, creek lines, floodplains;*
- (d) Incorporates appropriate levels of fire control and management;*

- (e) Promotes quality outcomes in built design and the siting and appearance of buildings;*
- (f) Incorporates community infrastructure to support the planned community;*
- (g) Ensures that on-site effluent disposal systems are appropriately sited and constructed to ensure all nutrients/waste is retained on site;*
- (h) Require revegetation with native species of areas within subdivisions to minimise visual impacts from surrounding properties and roads; and*
- (i) Minimises any potential land use conflicts with existing or planned surrounding uses.”*

Amendment No. 131 to TPS No. 3 rezoned surrounding land and provided for its subdivision and development to Special Residential standards. In doing so it foreshadowed the rezoning and subdivision of the subject land. To guide this process, specific measures were reviewed or incorporated into the scheme for adjoining land. This included:

- A 4000m² minimum lot size.
- A 75m wide building and effluent disposal system setback to the harbour (HWM).
- Minimise access to Nanarup Road.
- Continue foreshore widening as POS on the alignment identified by the widening provided by lots to the east and west.
- Provide for a PAW or similar link through the area for pedestrian/cycle and possibly emergency vehicle use.
- Provision of future road connections via transferrable rights of way from the interim turning heads on Kula Road and Nambucca Rise.
- Continue the 18m protection area/setback/widening for the Western Power overhead line.
- Link the established low fuel areas on the foreshore lots to the east and west so as to reduce risks for the wider area.

4. SITE ASSESSMENT

Land Assessment PTY LTD has completed a detailed assessment of the site for the proposed Special Residential development. This is attached in Appendix A.

In summary;

- Small areas of potentially good horticultural land exists but are mitigated by the small usable area available and are further constrained by remnant vegetation, water supplies for irrigation and potential for conflict with surrounding residential development.
- The land has an overall moderate capability to sustain non sewerred special residential type development.
- Elevated areas and areas near Nanarup Road are open or parkland cleared while the southern slopes near the foreshore are less disturbed.
- Invasive Sydney Wattle and Pampas Grass was noted along with landowner control.
- Native vegetation complexes on site are (or were) noted as Marri/Jarrah/Peppermint Woodland in the north running through to Melaleuca Low Forest in the south.
- None of the vegetation units on site could be considered poorly reserved/protected on a local scale.
- Albany Greenways shows the vegetation on the southern portion of Lot 106 and that in the foreshore as part of a green corridor.
- Six landform/soil units were identified being; on upland areas, Uc2 Crest (shallow gravels), Uc3 Crest (pale shallow grey sand), and Us2 Upper slopes (shallow gravels); on slopes, Sm2 Upper slope (deep sandy gravel), Ss2 Mid slope (sandy duplex soils), Sm3 Lower slope (grey deep sands).
- Due to the nature of the site's geology and elevated topography, depth to groundwater would not be a limiting factor for unsewerred residential development.
- The sites exceeded minimum requirements for the key soil properties for unsewerred residential development (permeability, nutrient retention and soil depth).
- Capability for special residential development was found to be fair to high. The only areas found where development/dwelling construction should be avoided were localized adjacent to the foreshore and in the north west around some shallow laterite.

5. SERVICES AND INFRASTRUCURE

5.1 Roads & Access

For the existing two lots access is made via Nanarup Road with direct frontage for Lot 105 and a winding battleaxe leg driveway for Lot 106.

Additional road connections to this section of Nanarup Road has not favoured in previous development. As a result, access for the proposed development may be made by transferring the Rights of Way to extend Kula Road and Nambucca Rise to the development site. This action was foreshadowed by the previous planning in the area and the original provision of these rights of way.

In the extension of Kula Road it may be necessary to remove or relocate an existing garage/shed on Lot 106. This will be ratified following detailed survey.

5.2 Potable Water Supply

Reticulated water supplies are available in Kalgan Heights and may be extended to the site.

5.3 Effluent Disposal

Disposal of effluent on the two properties and in the wider area is by way of on-site effluent disposal systems as scheme sewer is not available.

In accord with the land assessment, new development will be required to utilise high performance nutrient retaining systems.

5.4 Power & Telecommunication

The properties have access to power and telecommunication services which have been placed underground. There will be the need to continue the protection area/setback/widening adjacent to Nanarup Road which serves the Western Power HV Overhead Line.

5.5 Schools and Community Facilities

Local, Neighbourhood and Regional services and facilities are readily accessible and available in Lower King, Bayonet Head and the Albany City Centre respectively.

Great Southern Grammar is located to the east of Kalgan Heights and is linked by a dedicated pathway system.

6. PLANNING

Clause 5.5.8.3 of Local Planning Scheme No.1 requires a number of issues to be addressed. These include:

- Compliance with the outcomes and recommendations of the Albany Local Planning Strategy;
- Land Capability and suitability assessment;
- Protection and enhancement of the natural environment;
- Protection and enhancement of visual amenity;
- Provision of infrastructure and services;
- Impacts on adjacent land uses;
- Any potential for site contamination;
- Effluent disposal;
- Location of building envelopes, development exclusion areas;
- Preparation of a Subdivision Guide Plan for the subdivision showing proposed roads and connectivity between proposed /future and existing developments, lots, recreation areas, location of building envelopes, as relevant.

In this case, the rezoning and future subdivision of Lots 105 & 106 represents infill development within established Special Rural Zone Area No. 10. As a result, not all scheme issues are relevant as they have been met or set by the establishment of the existing zone.

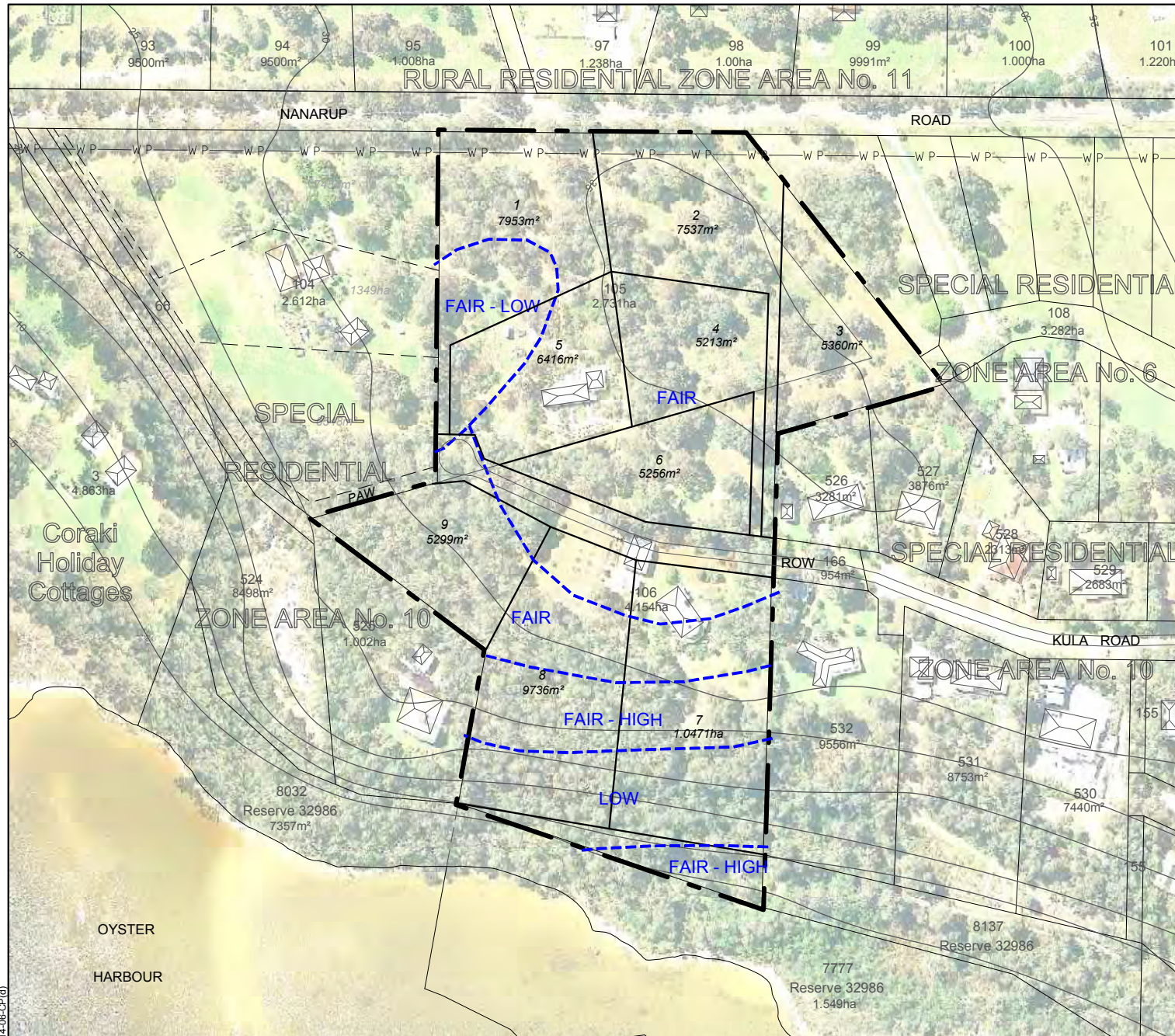
6.1 Subdivision Guide Plan and Zone Provisions

A subdivision layout is shown for the two lots overleaf. This plan will be used to update the Subdivision Guide Plan for the wider SR10 area.

Measures such as lot layout, access and servicing, Public Open Space and Pedestrian Access Way/s have carried through the requirements of the original zoning particularly in terms of providing for the PAW/Road link through the area for recreational and emergency use and the extension of the Public Open Space area adjacent to the Oyster Harbour foreshore and the provision of larger lots with large foreshore setbacks in the south and smaller lots in the more elevated flatter land.

CONCEPT PLAN

Lots 105 & 106 Nanarup Road
Lower King, City of Albany



LEGEND

- Subject Land
- Existing Lot Boundaries
- Proposed Lot Boundaries
- Future Possible Lot Boundaries
- Existing Buildings
- Landform Units (Refer to Land Assessment Report)
- Western Power

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14-06-CEP(d)

AYTON BAESJOU
PLANNING
11 Duke Street
Albany WA 6330
Ph 9842 2304 Fax 9842 8494

6.2 Fire Safety

A fire hazard assessment and fire management proposals are included as Appendix B. This plan ranks hazards and following liaison with Council's Fire/Emergency Management Officers notes fire safety requirements to be included in the development.

Requirements include:

- Hazard Separation Areas.
- Building Protection Zones.
- Dwelling construction to BAL 12.5 & 19 (AS 3959) on nominated lots.
- Modified perimeter fire break requirements.
- Onsite water for fire fighting purposes (ie, hydrant).
- Strategic fire break connection via PAW.
- Continuation of the east west Low Fuel Link.

6.3 Landscape

The rezoning will extend the existing building height and colouring controls within SR10 across the new lots. This will couple with the low density of development proposed, retention of foreshore vegetation, the open parkland setting of the new lots and the density of roadside vegetation to ensure development fits in with the nature and context of the area.

6.4 Capability and Site Assessment

A site and capability assessment is included within the Land Assessment Report (Appendix A). This assessment found minimal site constraints for the proposed low density residential so long as development is confined to the capable and suitable areas shown, the setbacks to Oyster Harbour are retained and high performance onsite effluent disposal devices are utilised.

Each lot has access to capable and suitable house sites and is capable of supporting onsite effluent disposal.

6.5 Servicing

When the plan is fully implemented, both accesses to Nanarup Road can be decommissioned and all access will be via Nambucca Rise and Kula Road. With an allowance of approximately 5vpd per new lot, there will not be a significant impact on these existing access roads.

Battleaxe legs will be provided with reciprocal rights where necessary and the tuning head constructed so that the Pedestrian Access Way planned from adjoining Lot 104 can provide an emergency vehicle and pedestrian link from Nanarup Road near the Lower King Bridge/Coraki Park through to Kalgan Heights.

Site conditions and the extremely low density of development allow for the continued use of swale based infiltration for hard packed surfaces and swale or soak wells for structure runoff overflow.

Electrical power and telecommunications service the site with new connections required for the new lot. The Western Power HV Overhead Line adjacent to Nanarup Road will need to be protected by an extension of the protection measures established in existing areas of SR10.

Potable water supplies can be supplied via extensions of the existing reticulated network.

6.6 Existing Provisions

The development contained within the new Subdivision Guide Plan is adequately covered by the existing general provisions of the scheme and the specific provisions applying to SR10. No modification appears necessary to account for the additional seven new house sites.

7. CONCLUSION

The rezoning /amendment proposal is a simple one providing for nine lots to be incorporated into existing SR10.

This rezoning was foreshadowed in the original creation of SR10 and is provided for by the Albany Local Planning Strategy. The proposal is on the land surrounded by existing development and thus provides for a form of subdivision and development already established and popular in the locality.

This is achieved whilst maintaining a very low density of development and also providing for the continued protection of the foreshore and associated remnant vegetation, fire safety requirements and site sensitive development generally.

As a result, the proposal has clear merit and accords with the principals of orderly and proper planning.

Appendix A

Land Capability Assessment

Lots 105 & 106 Nanarup Road, Lower King

Land Assessment Pty Ltd

**LAND CAPABILITY ASSESSMENT
- Special Residential Development**

**Lots 105 & 106 Nanarup Road, Lower King
City of Albany**

Prepared for

AYTON BAESJOU PLANNING

on behalf of

Mr G Clark and Mr J Kennedy

by

Land Assessment Pty Ltd



LA Report No 1403
15 April 2014

LAND ASSESSMENT PTY LTD
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1.0 INTRODUCTION

This report has been prepared for Ayton Baesjou Planning (on behalf of the landowners) as part of its submission to the City of Albany to initiate rezoning of Lots 105 and 106 Nanarup Road from 'Rural' to "Special Residential" and their subsequent subdivision to create lots of not less than a minimum 2000 m² in size.

The combined area of existing Lots 105 and 106 is approximately 6.9 ha and their location on the southern side on Nanarup Road in the Lower King locality is shown in Figures 1a and 1b.

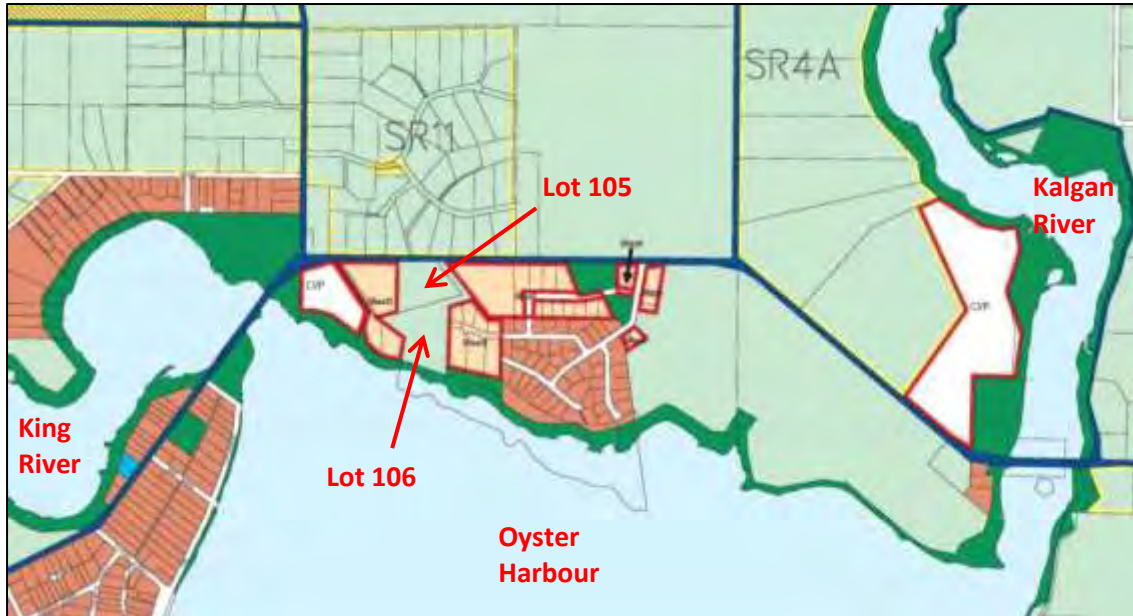
The subject land has been identified within the Local Planning Strategy (City of Albany 2010) as being provisionally suitable for 'Special Residential' development. Adjacent land to the east and west is already zoned and used for that purpose.

Under Town Planning Scheme No 3 (City of Albany 1980) Special Residential zones permit the creation of lots of between 2000 m² and 1 ha in suitable locations based on consideration of matters including appropriate physical and landscape conditions.

A proposed plan for subdivision needs to demonstrate that landform, vegetation and physical constraints have been taken into account in terms of the size and shape of proposed lots as well as road layout. This report seeks to address those requirements. It is based on a site inspection and soil survey conducted by Martin Wells of Land Assessment Pty Ltd during the period from the 17th to the 20th of March 2014, and an associated review of land resource and environmental planning and policy documents.

The capability of the land for Special Residential development (including on-site effluent disposal) has been assessed in general accordance with the methodology outlined in Department of Agriculture and Food publications (van Gool et al 2005, Wells and King 1989) and with due consideration of the requirements of the Draft Country Sewerage Policy (Government of Western Australia 1999).

FIGURE 1a: LOCATION PLAN (over scheme zoning map)



Source: Adapted from City of Albany Town Planning Scheme No 3 Map 19 of 33.

FIGURE 1b: LOCATION PLAN (over aerial image)



2.0 NATURE AND CAPABILITY OF THE LAND

2.1 Hydrology

The subject land is part of the catchment area to Oyster Harbour. This is a regionally significant estuary threatened by eutrophication due to excessive nutrient input mainly from agricultural areas in the catchment (Water and Rivers Commission 1997).

The topography of the lower portion of the Oyster Harbour catchment area is dominated by a gently undulating plain sloping towards the coast. This area is incised by the King and Kalgan Rivers as well as by numerous smaller drainage lines

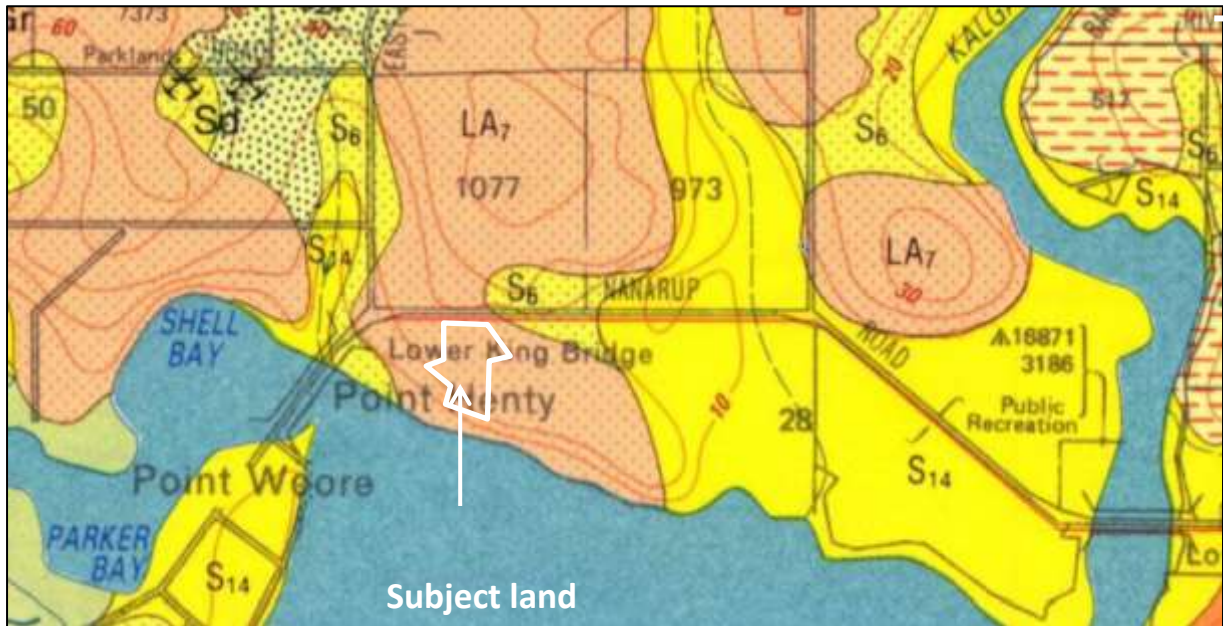
2.2 Geology

Geologically the area is underlain by Proterozoic rocks including granites and metamorphic gneiss which are exposed as hills along the coastal and near coastal fringe (Muhling and Brakel 1985). Tertiary marine sediments (Plantagenet group) lie above much of this basement rock, and a mantle of Cainozoic laterite extends over much of the gently undulating plain with Quaternary sand deposits in the valleys.

Environmental geology mapping, produced by the Geological Survey of Western Australia (Gozzard 1989), contains interpretive information for land use planning purposes. Figure 2 shows the geology of the subject area with Lots 105 and 106 occurring entirely within an area of Cainozoic laterite (LA₇).

Gozzard (1989) describes the laterite as being *massive, friable to strongly indurated, vesicular, some sand content, and being developed on siltstone of the Plantagenet Group. It provides variable foundation conditions and is usually excavated by blasting.* These factors are described as providing *possible problems associated with the use of the land for septic tanks* (i.e. excavation difficulties and limited soil material for absorption and purification of liquid effluent)

FIGURE 2: GEOLOGY

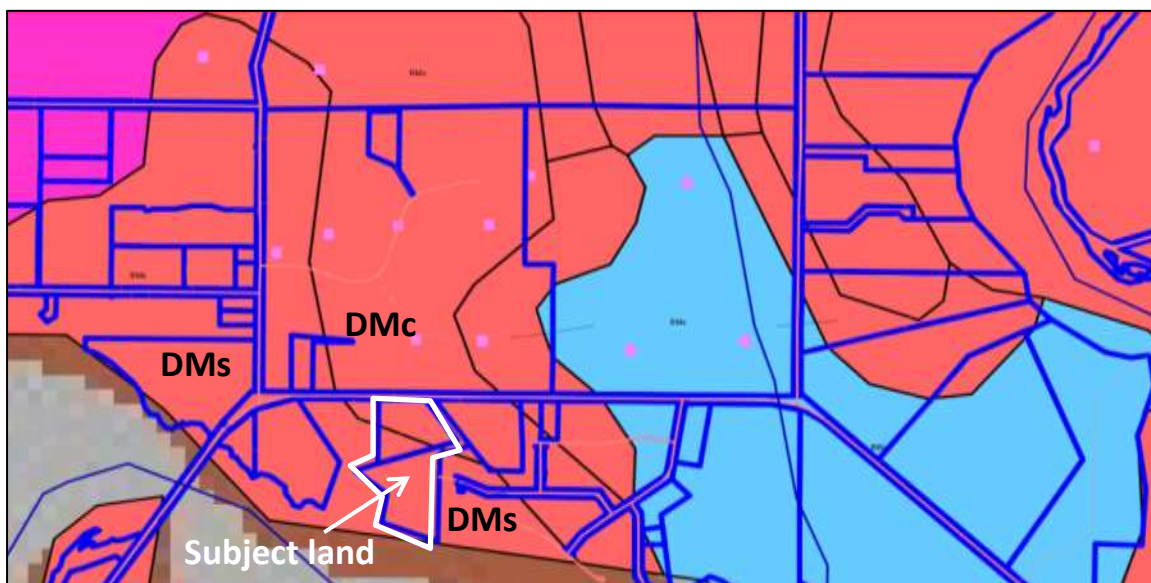


Source: Adapted from Environmental Geology Mapping Albany Sheet (Gozzard 1989).

2.3 Soil - Landscapes

A long history of weathering of the geological parent materials has resulted in a complex variety of soils and landforms as identified by CSIRO (Churchward et al 1988) and subsequently forming part of the Department of Agriculture and Food (DAFWA) soil-landscape mapping database from which broad-scale assessments of land use capability have been made. Figure 3 shows the relevant area.

FIGURE 3: SOIL LANDSCAPE MAPPING



Source: DAFWA (<http://spatial.agric.wa.gov.au/slip>) based on Churchward et al (1988).

Legend to Figure 3.

King (Kg) Soil Landscape System (Reddish brown colour) - *Dissected siltstone and sandstone terrain, on the southern edge of the Albany Sandplain Zone, with shallow gravels, sandy gravels, grey sandy duplex soils, and pale deep sands.*

DM -Dempster Subsystem - Ridges formed by dissection of lateritic plateau (upland plain)

DMc- Dempster crest phase - Sands and laterite on elongate crests;

DMs- Dempster slope phase - Sands and gravels on smooth slopes

DAFWA have produced land capability interpretations based on this broad-scale mapping. Due to the inevitable degree of variability of landform and soil conditions within any broad-scale mapping unit, the DAFWA assessments utilise the concept of 'proportional capability classes'. Instead of assigning a single specific (high, moderate or low) capability rating to all areas of a particular map unit, a proportional assessment is used. This expresses the capability more conservatively as a range (e.g. 50-70%) of the total area of a map unit is expected to contain land of a certain capability rating. Table 1 shows the assessment results for the Dempster (DMc and DMs) map units.

TABLE 1. BROAD-SCALE LAND CAPABILITY RATINGS

Map Unit (Dempster Subsystem)	Perennial Horticulture (incl vines)	Annual Horticulture (vegetables)	Grazing	Cropping	Septic Tanks
DMc	B1	B1	B2	C1	B2
DMs	A2	B1	B1	C2	B1

A1 = >70% has high capability; A2 = 50-70% high capability; B1 = >70% moderate to high capability; B2 = 50-70% moderate to high capability; C1= 50-70% low capability; and C2 = >70% low capability.

Essentially this broad-scale interpretation indicates the land is of moderate capability for un-sewered rural-residential development. For the sloping portions, unit DMs, this land could potentially be considered good horticultural land. However this is surpassed by the necessity to consider remnant vegetation, water supply for irrigation, and the identification of the subject land within the endorsed Local Planning Strategy (City of Albany 2010) as being provisionally suitable for non-agricultural land-use.

2.4 Topography and Land Use

The subject land encompasses part of a broad crest of gravelly lateritic terrain on the southern side of Nanarup Road that gives way to moderately steep slopes leading down to the northern edge of Oyster Harbour. It ranges in elevation from a maximum of approximately 35 m AHD within Lot 105, to around 12 m AHD within the footslope at the southern edge of adjacent Lot 106.

An existing residence occurs on each lot, and both lots contain modest areas of horticultural activity within the shallow gravelly soils and common surface laterite.

2.5 Vegetation and Conservation Values

As shown in Figure 1b and site photographs, the upland areas closest to Nanarup Road are parkland cleared, while the southern slopes descending to Oyster Harbour are apparently less disturbed* and more substantially vegetated.

The Albany Regional Vegetation Survey, ARVS (Sandiford and Barrett 2010) identifies the more intact patches of the existing upland vegetation within Lots 105 and 106 as part of its vegetation unit 10 (Marri/Jarrah Forest/Peppermint Woodland). The southerly aspect slope within Lot 106 is shown as containing vegetation unit 36 (*Callistachys spp* thicket) leading down to vegetation unit 65 (Coastal *Melaleuca cuticularis* Low Forest) along the Oyster Harbour foreshore (outside of Lot 106).

Although the ARVS results indicate that vegetation units 10 (upland Marri, Jarrah etc) and 65 (Coastal *Melaleuca* – beyond Lot 106) have less than 10% of their ARVS extent occurring in conservation reserves, Sandiford and Barrett (2010) state that care needs to be used in interpreting this reservation status data. This is because significant areas of conservation reserve occur within the ARVS context area (a roughly 35 km radius of Albany encompassing about 209,000 ha) but outside the actual survey area (of around 125,400 ha).

Taking known vegetation occurrences in these reserves into account, none of the vegetation units within the subject land can be considered poorly reserved on a local scale. Notwithstanding this, the City's *Albany Greenways* (2002) project broadly identifies the vegetated slope within Lot 106 as part of an ecological corridor which extends around most of Oyster Harbour. Furthermore, action statements within the Local Planning Strategy (City of Albany 2010) indicate that clearing and location of building envelopes within the vegetated slope between the lateritic upland and Oyster Harbour would not be permitted.

* Some rehabilitation activity involving removal of invasive Sydney Wattle (*Acacia longifolia*) has occurred, and there is also scattered Pampas grass (*Cortaderia spp*).

2.6 Land Unit Mapping

Given the broad scale of soil-landscape mapping depicted in Figure 3, some 'on-ground' variation can be expected in soil and landform conditions. More detailed survey and mapping of the site conditions was therefore undertaken as a basis for a 'property-specific' consideration of the capability of the land.

Soil and landform conditions within Lots 105 and 106 were surveyed in general accordance with the methodology outlined in Department of Agriculture and Food publications (van Gool et al 2005, Wells and King 1989). This involved examination of aerial photos followed by the field survey work during March 17 - 20. The soils were examined at fourteen preliminary soil hand auger observation sites (1 - 14) followed by a further eight, mainly shallow, pit sites (M N O, P, R, S, T and U) excavated by backhoe. Appendix A includes an aerial image with site locations and a results summary.

Sites, particularly for the excavated pits, were located to enable description of representative areas of each slope class and aerial photo pattern. The most likely areas for building envelopes were also considered given vegetation and landscape protection objectives expressed within the Local Planning Strategy (City of Albany 2010).

The soils were classified in accordance with the WA Soil Group nomenclature (Schoknecht 2002) and slope gradients were measured using a hand-held inclinometer correlated with available 2 m interval contour mapping. Site positions were recorded using a hand-held GPS unit.

Depth to groundwater was not able to be recorded as the watertable (perched or otherwise) was not encountered within any of the excavated pits. Furthermore, there are no bores within either Lot 105 or 106 from which depth to groundwater data might be obtained. Notwithstanding this, the nature of the geology and the elevated topography indicate that depth to groundwater would not be a limiting factor for unsewered 'Special Residential' development within Lots 105 and 106.

The results of the more-detailed mapping of land units (soil-landform types) are shown overleaf in Figure 4. The six delineated land units are described in the legend, and further appreciation of site conditions can be gained by reference to the photographs following Figure 4, as well as those accompanying the soil pit descriptions in Appendix B.



Upland terrain	Uc2 Crest; shallow gravels and common surface laterite Uc3 Crest; pale very shallow grey sand over laterite Us2 Upper slopes (< 5 % gradient); shallow gravels and common surface laterite.
Slopes (to Oyster Harbour)	Sm2 Upper slope; moderate gradient (10-15%); deep sandy gravel; some laterite. Ss2 Mid slope; moderately steep gradient (15 – 25%); sandy duplex soils. Sm3 Lower slope; moderate gradient (10-15%); grey deep sands.

**Figure 4:
Land Units**

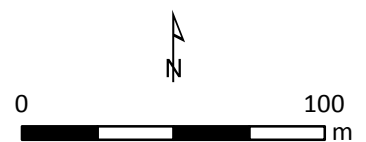




Photo 1. Land unit Uc2 Crest with shallow gravels - Lot 105.



Photo 3. Unit Uc2 Laterite boulders, rather than extensive hardpan, enable permeability.



Photo 2 Land unit Uc2 Common surface laterite - Lot 105.



Photo 4. Land unit Uc2 Crest with shallow gravels - Lot 106.



Photo 5. Land unit Uc2 Remnants; mainly Marri & Jarrah upland vegetation



Photo 7. Land unit Uc3 Lot 105. Crest with pale, very shallow, grey sands over laterite



Photo 6. Land unit Us2 Lot 106 - inverted leach drains within house pad.



Photo 8. Land unit Sm2 Upper, moderate slope with deep sandy gravel, Lot 106 site 9.



Photo 9. Unit Sm2 Upper slope Lot 106; remnant Marri, Jarrah, Peppermint.



Photo 11. Unit Sm3 Lower slope Lot 106; *Callistachys spp* thicket.



Photo 10. Unit Ss2 Mid slope (moderately steep) - gradational vegetation.



Photo 12. Foreshore vegetation fringing Oyster Harbour (outside Lot 106).

2.7 Key Soil Properties for Un-sewered Development

Permeability

The soil pit descriptions in Appendix B contain an estimated permeability (for the nominal 40 – 80 cm depth layer within the soil where, under natural conditions, a leach drain would be installed). Although restricted by shallow soil the ‘well drained’ permeability status is based on consideration of soil texture and structure in accordance with indicative rates listed in the relevant National Standards document, AS/NZS 1547 (Standards Australia & Standards New Zealand 2000).

Ability to retain nutrients

Subsoil sampling was undertaken at pit sites M, O and R (see Appendix B) for PRI (Phosphorus Retention Index) analysis. The results are included in Appendix C and Table 2 below. The results show the soils, although shallow, are moderately adsorbing of phosphorus using criteria established by the Chemistry Centre of Western Australia (Allen and Jeffery 1990). They exceed the recommended minimum value of 5 under the *Consultation Draft of the Government Sewerage Policy* (Department of Health 2012).

TABLE 2: SUMMARY OF SOIL PRI TEST RESULTS

Site	Land unit	Field Texture (subsoil)	PRI	Category*
M	Uc2 (Lot 106)	Sand (gravelly)	12.5	Moderately adsorbing
O	Sm2 (Lot 106)	Loamy sand	9.5	Moderately adsorbing
R	Uc2 (Lot 105)	Loamy sand	5.5	Moderately adsorbing

* Allen and Jeffery (1990).

Soil Depth and Effect of Imported Material

It should be noted that the limited soil depth within most of the subject land will require leach drains to be either fully or partially inverted, and hence located within free draining soil material brought onto the site.

Commonly, yellow brown ‘builders sand’ is used to encompass leach drains in these situations where the natural soil is of inadequate depth. This material generally has a clayey sand texture and can be expected to have suitable permeability and a moderate to strongly adsorbing PRI to prevent excessive leaching of nutrients (phosphorous in particular) from on-site disposal of domestic effluent / wastewater.

2.8 Land Capability Assessment

Land capability' is a term used to express the ability of land to support a proposed change in use with minimal risk of degradation to its soil and water resources.

For Lots 105 and 106, the proposed change in land use is from 'Rural' to un-sewered rural-residential ('Special Residential') development. This new zoning category dictates minimum lot sizes of 2000 m². The primary 'new' land use activity with potential to affect soil and water resources is the location of additional houses and their associated systems for on-site effluent disposal.

The capability of the land for the proposed form of development has been assessed in general accordance with the methodology outlined in Department of Agriculture and Food (DAFWA) publications - van Gool et al (2005) and Wells and King (1989). Specific site requirements under the existing Draft Country Sewerage Policy (Government of Western Australia 1999) relating to soil permeability and separation from groundwater and surface waterbodies are also considered.

A five class rating system from 'very high' capability (class one) to 'very low' capability (class five) is used here (albeit with intergrade categories). Land of 'very high' capability is considered to have few inherent physical land use limitations and minimal associated risk of land degradation. At the other end of the scale, 'very low' capability land is severely constrained by the inherent soil or landform conditions and there is an associated high risk of land or water degradation.

The capability assessment results for Lots 105 and 106 are shown in Figure 5 overleaf, and are further detailed in Table 3.



Land Capability

- Fair to High - Minor Limitations
- Fair - Moderate Limitations
- Fair to Low - Moderate to Significant Limitations
- Low - Significant Limitations
- Very Low- Severe Limitations

Land Units

Labels in bold
 Descriptions in Figure 4

Limitations

Labels in brackets
 e erosion risk
 n nutrient retention (poor)
 x excavation difficulties (shallow depth to laterite)

**Figure 5:
 Land Capability
 Assessment for
 Special Residential
 Development**

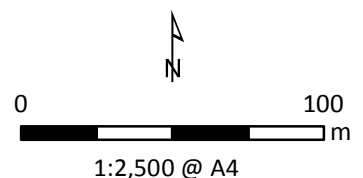


TABLE 3: LAND CAPABILITY ASSESSMENT – SPECIAL RESIDENTIAL DEVELOPMENT					
Land Unit	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
Upland Terrain (equivalent to DAFWA soil landscape - Dempster crests (DMc))					
Uc2	Crest (< 3%); shallow gravels and common surface laterite	Fair		Excavation difficulties, Minimal soil	See Appendix B Soil Pit Sites M, R, S and U. Limited depth of natural soil and common surface lateritic stones and boulders. The underlying laterite is however relatively permeable (preferred drainage pathways), is usually underlain by nutrient retentive clay at > 2m depth. There is also adequate separation from groundwater given elevated landscape position. In light of the above, conventional septic tanks with leach drains located within imported sand fill (inverted leach drain system) should be acceptable.
Uc3	Crest (< 3%); pale very shallow grey sand over laterite	Fair to Low	Excavation difficulties, Minimal soil		See Appendix B Soil Pit Site T. Shallower soil and possibly more competent underlying laterite, otherwise comments and planning response as for unit Uc2 above.
Us2	Upper slopes (3 - 5 % gradient); shallow gravels and common surface laterite	Fair		Excavation difficulties, Minimal soil	See Appendix B Soil Pit Site N. Comments and planning response as for unit Uc2 above.

TABLE 3: LAND CAPABILITY ASSESSMENT – SPECIAL RESIDENTIAL DEVELOPMENT					
Land Unit	Description	Capability Rating	Major Limitations	Lesser Limitations	Comment / Planning Response
Sloping Terrain (equivalent to DAFWA soil landscape - Dempster slopes (DMs)).					
Sm2	Upper slope; moderate gradient (10-15%); deep sandy gravel; some laterite.	Fair to High		Excavation difficulties,	<p>See Appendix B Soil Pit Sites O and P. Deeper gravelly soil than upland units, although lateritic stones and boulders within soil profile may still hinder excavation for leach drains.</p> <p>The underlying laterite is relatively permeable (preferred drainage pathways), and an uprooted tree shows it is underlain by nutrient retentive clay. Adequate separation from groundwater given elevated landscape position.</p> <p>Conventional septic tanks with leach drains partially located within imported sand fill (partially inverted leach drain system) should be acceptable.</p> <p>Much of this land unit encompasses remnant vegetation and it <u>might</u> be considered to intrude into the 'ecological corridor' delineated during the City's <i>Albany Greenways</i> (2002) project, and as reflected in its Local Planning Strategy (2010).</p>
Ss2	Moderately steep (15 – 25%) mid slope; sandy duplex soils.	Low	Erosion risk		All located within remnant vegetation and the broadly delineated 'ecological corridor'. <u>Not suitable</u> for building envelopes.
Sm3	Moderate (10-15%) lower slope; grey deep sands.	Low	Proximity to Oyster Harbour (Pollution risk)	Limited nutrient retention or microbial purification ability	As above for Ss3 (i.e. <u>not suitable</u> , particularly considering likely setback requirement).

3.0 CONCLUSIONS

Provisions within Town Planning Scheme No 3 (Schedule IV) relating to the adjacent *Nananup Road Kalgan Heights* Special Residential Zone provide guidance on the key environmental planning matters in this portion of the City of Albany. They indicate the important environmental objectives associated with the rezoning of Lots 105 and 106 are retention of significant vegetation, and the minimisation of both nutrient export and visual impact. These matters, and the effect of the land capability assessment on the proposed rezoning and subsequent subdivision, are addressed as follows;

3.1 Retention of significant vegetation

None of the vegetation units within the subject land can be considered poorly reserved on a local scale. Notwithstanding this, the vegetated slope within the southern portion of Lot 106 is part of an 'ecological corridor' which extends around most of Oyster Harbour (City of Albany 2010). This portion of Lot 106 should therefore be considered as containing vegetation of significance and hence it is unlikely that any clearing and location of building envelopes here would be permitted.

3.2 Minimising nutrient export.

Potential sources of nutrients associated with 'Special Residential' land use and that might eventually find their way into Oyster Harbour are on-site effluent disposal systems and livestock excrement.

Soil PRI analysis shows the in-situ soil material is moderately adsorbing and exceeds (just) the recommended minimum value of 5 under the *Consultation Draft of the Government Sewerage Policy* (Department of Health 2012). Notwithstanding this, limited soil depth within most of the subject land will require leach drains to be either fully, or partially, inverted and hence located within free draining soil material brought onto the site. As this material is commonly free draining 'builders sand' (part of a house pad) with a clayey sand texture, it is likely that the nutrient retention ability of the site would be enhanced by this soil fill material.

Additional protection against nutrient loss from on-site effluent disposal systems might be provided through a condition requiring the use of Health Department approved alternative systems that have a phosphate removing capability. However this is considered unnecessary in light of the PRI values of the underlying in-situ soil material, and the likely application of a minimum 75 m setback for any building or effluent disposal system from the high watermark of Oyster Harbour.

A 75 m setback from Oyster Harbour is a specific provision (No 5.4) for the adjacent Nanarup Road Kalgan Heights Special Residential zone, and the keeping of livestock is not permitted without specific approval from Council. In view of the relatively poor shallow soils, the extent of existing tree cover in the parkland cleared upland areas, and the objective of minimising visual impact (through any additional clearing) it is suggested the keeping of livestock within lots created by rezoning and subdividing exiting Lot 105 and 106 would be inappropriate.

Given these conditions the potential for nutrient export associated with the proposed rezoning and subsequent subdivision is minimal.

3.3 Minimising visual impact.

The City of Albany Local Planning Strategy (2010) outlines the importance of considering visual impacts, particularly from recognised tourist routes. Lots 105 and 106 are partly bordered by Nanarup Road, although the effect of topography and roadside vegetation (see photo below) is such that only a minor portion of the northern boundary of existing Lot 105 affords views into the subject land.

Visual impacts can therefore be minimized through maintaining this roadside vegetation, and by extrapolation of the existing vegetation protection and building design, materials and colour provisions that currently apply to adjacent *Nanarup Road – Kalgan Heights* Special Residential zone.



Photo 13. View from Nanarup Rd at 'dog-leg' entrance to Lot 106 and showing vegetative screening of adjacent Lot 105.

3.4 Effect of land capability on plan of subdivision

A proposed plan for subdivision needs to demonstrate that landform, vegetation and physical constraints have been taken into account in terms of the size and shape of proposed lots as well as road layout.

Subject to avoiding location of building envelopes within the vegetated slope on the southern side of Lot 106 (i.e. within the designated 'ecological corridor') the remainder of Lot 106 and adjacent Lot 105 is however relatively uniform in relation to the capability of the land and hence exerts little influence over the pattern of subdivision or the position of access road/s.

To a varying degree, all lots created within this upland lateritic terrain will be affected by shallow soil and rock (laterite) outcrop. This presents a limitation to the installation of systems for on-site treatment and disposal of domestic effluent / wastewater. However this limitation is commonly addressed with conventional septic tanks linked to inverted or partially inverted leach drains that are contained within soil fill material (usually part of a house sand pad) so that effluent can pass through an appropriate depth of permeable soil for nutrient retention and microbial purification purposes.

Not forsaking the above, the best soil conditions for on-site effluent disposal occur within land unit Sm2 representing the upper portion of the slope on the southern side of Lot 106 where, although lateritic conditions are still present, the soils are generally deeper than on the upland crest. However, only limited areas in vicinity of pit sites O and P are clear of vegetation (see Appendix B photos).

Within existing Lot 105 the underlying laterite within land unit Uc3 appears more competent than in the other crest unit (Uc2). Although this can be addressed as described through inverted leach drains, development costs associated with excavation might be eased if, where practical, the configuration of newly subdivided lots enabled affected lots to encompass part of the adjacent Uc2 land type as a slightly better option for building.

In relation to agricultural land use capability the subject land is constrained by its existing small size, extent of vegetative cover, and the shallow gravelly soils. In addition, consideration of the potential loss of productive agricultural land would logically have formed part of the process of developing the City of Albany's Local Planning Strategy, under which the subject land is currently identified as having potential for Special Residential development rather than agriculture.

There is no indication from the site-specific land capability assessment to suggest that the earlier strategic planning decision to allow alienation of this small area from the agricultural land base was inappropriate.

4.0 REFERENCES

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APPENDIX A:

SITE LOCATIONS & RESULTS SUMMARY

APPENDIX A: SITE LOCATIONS & RESULTS SUMMARY



Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Site 1	50 H 587283	6132838	35 m	Dc	Upland crest Slope 1-3%	Shallow gravel	Yellow brown shallow gravel with sandy matrix.	Uc2
Site 2	50 H 587259	6132824	35 m	Dc	Upland crest Slope 1-3%	Shallow gravel	Yellow brown shallow gravel with sandy matrix.	Uc2
Site 3	50 H 587238	6132898	34 m	Dc	Upland crest Slope 1-3%	Shallow gravel	Yellow brown shallow gravel with sandy matrix.	Uc2
Site 4	50 H 587137	6132820	32 m	Ds	Upland crest Slope 1 %	Pale shallow sand (over laterite)	Shallow grey sand over gravel / laterite.	Uc3
Site 5	50 H 587118	6132780	31 m	Ds	Upland crest Slope 1 %	Pale shallow sand (over laterite)	Shallow grey sand over gravel / laterite.	Uc3
Site 6	50 H 587117	6132764	31 m	Ds	Upland crest Slope 1-3%	Pale shallow sand (over laterite)	Shallow grey sand over gravel / laterite.	Uc3
Site 7	50 H 587211	6132732	33 m	Ds	Upland crest Slope 1-3%	Shallow gravel	Shallow gravel with sandy matrix.	Uc2
Site 8	50 H 587158	6132682	29 m	Ds	Gentle upper slope 3-5%	Shallow gravel	Shallow gravelly grey sand over gravel / laterite.	Us2

Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Site 9	50 H 587168	6132623	26 m	Ds	Moderate mid to upper slope 10-13%	Deep sandy gravel	Grey sand over yellow brown gravel with sandy matrix then laterite.	Sm2
Site 10	50 H 587224	6132615	26 m	Ds	Moderate mid to upper slope 10-13%	Deep sandy gravel	Grey sand over yellow brown gravel with sandy matrix then laterite.	Sm2
Site 11	50 H 587273	6132569	18 m	Ds	Mid slope 26 %	Sandy duplex soil	Reddish brown sand over gravel layer at approx. 30 cm then clay.	Ss2
Site 12	50 H 587271	6132532	10 m	Ds	Lower slope 10- 12%	Pale deep sand	Grey deep sand.	Sm3
Site 13	50 H 587215	6132541	12 m	Ds	Mid to lower slope 18-20%	Sandy duplex soil	Reddish brown sand over gravel layer and then clay.	Ss2
Site 14	50 H 587238	6132742	33 m	Ds	Upland crest Slope 1-3%	Shallow gravel	Yellow brown shallow gravel with sandy matrix.	Uc2
Pit M	50 H 587234	6132755	33 m	Ds	Upland crest Slope 1-3%	Shallow gravel	See Soil Pit Description	Uc2
Pit N	50 H 587145	6132695	29 m	Ds	Gentle upper slope 3-5%	Shallow gravel	See Soil Pit Description	Us2
Pit O	50 H 587162	6132621	26 m	Ds	Moderate mid to upper slope 10-13%	Deep sandy gravel	See Soil Pit Description	Sm2

Soil Site No ¹	Easting	Northing	Elevation m AHD	Soil landscape ²	Landform ³	Soil Group ⁴	Other	LMU
Pit P	50 H 587222	6132611	26 m	Ds	Moderate mid to upper slope 10-13%	Deep sandy gravel	See Soil Pit Description	Sm2
Pit R	50 H 587241	6132890	34 m	Dc	Upland crest Slope 1-3%	Shallow gravel	See Soil Pit Description	Uc2
Pit S	50 H 587282	6132830	35 m	Dc	Upland crest Slope 1-3%	Shallow gravel	See Soil Pit Description	Uc2
Pit T	50 H 587130	6132801	32 m	Ds	Upland crest Slope 1 %	Pale shallow sand (over laterite)	See Soil Pit Description	Uc3
Pit U	50 H 587121	6132881	32 m	Dc	Upland crest Slope 1-3%	Shallow gravel	See Soil Pit Description	Uc2

FOOTNOTES **1. Sites** 1 – 14 are hand auger observations. Pits M – U are excavated soil pit observations. **2. Soil-landscape** units are from 1: 100 000 scale DAFWA mapping. **3. Landform** descriptors as described by van Gool et al (2005). **4. Soils** classified to WA Soil Groups (Schoknecht (2002)).

APPENDIX B

SOIL PIT DESCRIPTIONS

APPENDIX B

SOIL PIT DESCRIPTIONS



Site Number: M 50 587234E; 6132755 N	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Uc2
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Landform: Upland crest (1-3% gradient)

A photograph of a soil profile. A yellow measuring tape is placed vertically against the soil face. The soil is reddish-brown and appears to be a mix of sand and gravel. There are some larger stones or boulders visible at the top of the profile.	WA Soil Group: <i>Shallow gravel</i>	
	Depth (cm)	Description
	0 – 5	Dark brown (7.5YR 3/2) sand , with common medium to coarse ferruginous gravels; apedal with earthy fabric; clear boundary to
	5 – 25	Strong brown (7.5YR 4/6) sand with many medium to coarse ferruginous gravels loam ; massive with earthy fabric; abrupt boundary to;
25+	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth)
 Not applicable – below soil material. **Comment:** Common surface lateritic stones and boulders. Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

Site Number: N 50 587145E; 6132695 N	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Us2
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Landform: Gentle to upper slope (3-5% gradient)

	WA Soil Group: <i>Shallow gravel</i>	
	Depth	Description
	0 – 5 cm	Very dark greyish brown (10YR 3/2) sand, few medium sized ferruginous gravels apedal with earthy fabric; clear boundary to;
	5 – 20	Yellowish brown (10YR 5/4) sand ; common medium to coarse sized ferruginous gravels massive with earthy fabric; abrupt boundary to;
20+	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) Not applicable – below soil material.. **Comment:** Common surface lateritic stones and boulders. Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

Site Number: O 50 587162E; 6132621 N	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Sm2
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Landform: Moderate mid to upper slope (10-13% gradient)

	WA Soil Group: <i>Deep sandy gravel</i>	
	Depth	Description
	0 – 10 cm	Very dark greyish brown (10YR 3/2) sand ; common medium to coarse sized ferruginous gravels; apedal with earthy fabric; clear boundary to;
	10 – 40	Dark yellowish brown (10YR 4/6) loamy sand ; common coarse sized ferruginous gravels or cobbles; massive with earthy fabric; clear boundary to
	40 – 100	Yellowish brown (10YR 5/6) loamy sand ; common medium to coarse sized ferruginous gravels; massive with earthy fabric; abrupt boundary to
100+	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Well drained). **Comment:** Few surface lateritic stones and boulders. These may also occur within soil profile and hinder excavation for leach drains. Partially inverted leach drains recommended. Adequate separation from groundwater given elevated position in landscape.

Site Number: P 50 529300E; 6130088N	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Sm2
---	---	-----------------------



Landform: Moderate mid to upper slope (10-13% gradient)

	WA Soil Group: <i>Deep sandy gravel</i>	
	Depth	Description
	0 – 10cm	Very dark greyish brown (10YR 3/2) sand ; common medium to coarse sized ferruginous gravels; apedal with earthy fabric; clear boundary to;
	10 – 40	Dark yellowish brown (10YR 4/6) loamy sand ; common coarse sized ferruginous gravels or cobbles; massive with earthy fabric; gradual boundary to;
	40 – 100	Yellowish brown (10YR 5/6) loamy sand ; common medium to coarse sized ferruginous gravels; massive with earthy fabric; abrupt boundary to;
100+	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) > 3.0 m/day (Well drained). **Comment:** Few surface lateritic stones and boulders. These may also occur within soil profile and hinder excavation for leach drains. Partially inverted leach drains recommended. Adequate separation from groundwater given elevated position in landscape.

Site Number: R 50 587241E; 6132890N	Soil landscape mapping: King System - Dempster crest Phase (Dc)	Land unit: Uc2
---	---	-----------------------



Landform: Very gently undulating crest (1-3 % gradient)

	WA Soil Group: <i>Shallow gravel</i>	
	Depth	Description
	0 –5 cm	Very dark greyish brown (10YR 3/2) sand ; common medium sized ferruginous gravels apedal with earthy fabric; clear boundary to;
	5 - 40	Yellowish brown (10YR 5/4) loamy sand ; massive with earthy fabric; many medium to coarse sized ferruginous gravels; massive with earthy fabric; abrupt boundary to :
40 +	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth)
 Not applicable – below soil material. **Comment:** Few surface lateritic stones and boulders. Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

Site Number: S 50 587282E; 6132830N	Soil landscape mapping: King System - Dempster crest Phase (Dc)	Land unit: Uc2
---	---	-----------------------



Landform: Very gently undulating crest (1 - 3 % gradient)

	WA Soil Group: <i>Shallow gravel</i>	
	Depth	Description
	0 –5 cm	Very dark greyish brown (10YR 3/2) sand ; common medium sized ferruginous gravels apedal with earthy fabric; clear boundary to;
	5 - 50	Yellowish brown (10YR 5/4) loamy sand ; massive with earthy fabric; many medium to coarse sized ferruginous gravels; abrupt boundary to;
50 +	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) Not applicable – below soil material. **Comment:** Few to common surface lateritic stones and boulders. Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

Site Number: T 50 587130E; 6132801N	Soil landscape mapping: King System - Dempster slope Phase (Ds)	Land unit: Uc3
---	---	-----------------------



Landform: Crest (1 % gradient)

	WA Soil Group: <i>Pale shallow sand (over laterite)</i>	
	Depth (cm)	Description
	0 – 15	Grey (10YR 6/1) sand , apedal single grain with earthy fabric; very few medium sized ferruginous gravels; clear boundary to;
	15 – 25	Yellowish brown (10YR 5/4) sand ; massive with earthy fabric; common medium sized ferruginous gravels; abrupt boundary to;
25 +	Laterite boulder (backhoe refusal).	

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth)
 Not applicable – below soil material. **Comment:** Few surface lateritic stones and boulders. Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

Site Number: U 50 587121E; 6132881N	Soil landscape mapping: King System - Dempster crest Phase (Dc)	Land unit: Uc2
---	---	-----------------------



Landform: Very gently undulating crest (1 - 3 % gradient)

	WA Soil Group: <i>Shallow gravel</i>	
	Depth	Description
	0– 8cm	Very dark greyish brown (10YR 3/2) sand ; common medium to coarse sized ferruginous gravels; apedal with earthy fabric; clear boundary to;
	8– 45	Dark yellowish brown (10YR 4/6) sand ; common coarse sized ferruginous gravels or cobbles; apedal with earthy fabric; abrupt boundary to;
	45 +	Laterite boulder (backhoe refusal).;

Indicative subsoil permeability and AS 1547:2000 drainage class: (at 40 – 80 cm leach drain depth) Not applicable – below soil material. **Comment:** Few to common surface lateritic stones and boulders. Sand fill and septic tanks with inverted leach drains needed due to inadequate depth of natural soil. However, the underlying laterite is relatively permeable (preferred drainage pathways), is usually underlain by clay at > 2m depth, and there is adequate separation from groundwater given elevated position in landscape.

APPENDIX C

SOIL PRI TEST RESULTS

ANALYSIS REPORT

Lab No	WPS14166	WPS14167	WPS14168	WPS14169	WPS14170	WPS14171	WPS14172
Name	C4	FB	GB	MB	OB2	RB	I1B
Code	31/3/14	31/3/14	31/3/14	31/3/14	31/3/14	31/3/14	31/3/14
Customer	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS	MARIN WELLS
Depth	0-10	0-10	0-10	0-10	0-10	0-10	0-10
Phosphorus Retention Index	0.5	0.7	78.9	12.5	9.5	5.5	115.3

Appendix B

Fire Plan

Lots 105 & 106 Nanarup Road, Lower King

FIRE PLAN**Lots 105 & 106 Nanarup Road****Lower King City of Albany**

Fire Plan & Assessment, Notes and Inclusions, refer plan attached.

Notes:

- Subject land is within an area of existing development containing residential lots ranging from 2000m². Lots on subject land range up from 4000m².
- Development on adjoining lots and the associated low fuel and hazard separation areas establish the southern extent of the low fuel area for the subject land.
- All cleared and parkland cleared areas north of the low fuel link/ Lot 7-9 firebreak are to be maintained in a low fuel/hazard reduced state. Implemented at subdivision and maintained by landowners (ie annual slashing/pruning).

Measures:

- Access. Road access via constructed road extension (Kula Road). Battleaxe legs to be constructed where shown (Lots 1-5).
- On subdivision of adjoining Lot 104, strategic firebreak within 8m wide Pedestrian Access Way will extend from the new Kula Road extension up to Nanarup Road.
- Interim SFB link to be provided to Nanarup Road via Lot 2 access leg. To be decommissioned when Lot 104 link is provided.
- Firebreaks. Perimeter firebreak to be provided as shown on plan for Lots 7-9.
- Water Supplies. Hydrant to be provided on extension to water main on Kula Road, preferably at turning head.
- Hazard Separation. All land north of low fuel link/ Lot 7-9 firebreak to be maintained as a hazard separation area in a low fuel condition.
- Building Protection Zone. All dwellings to be provided with a minimum 20m wide Building Protection Zones.
- 30m BPZ required to southern edge of BPZ on Lots 7, 8 & 9.
- BAL Construction. Lots 1 – 6, BAL12.5 applies. Lots 7, 8 & 9, BAL 19 applies.
- As condition of subdivision, developer to provide road access, fire water point, constructed battleaxes, perimeter fire break & cleared and parkland cleared areas in a low fuel state.
- Arrangements to be made to the satisfaction of Council to ensure prospective purchasers, in the transfer of lots, are aware of the Homeowners Bushfire Survival Manual, the scheme provisions, this Fire Plan and the landowner responsibilities to:
 - Design and construct within identified building envelopes to BAL 12.5/19 as appropriate.
 - Maintain perimeter firebreak where it crosses individual lots and provide appropriate gates where fenced.
 - Slash or otherwise appropriately maintain Building Protection Zones and Hazard Separation Areas in a low fuel state.

FIRE PLAN

Lots 105 & 106 Nanarup Road Lower King, City of Albany

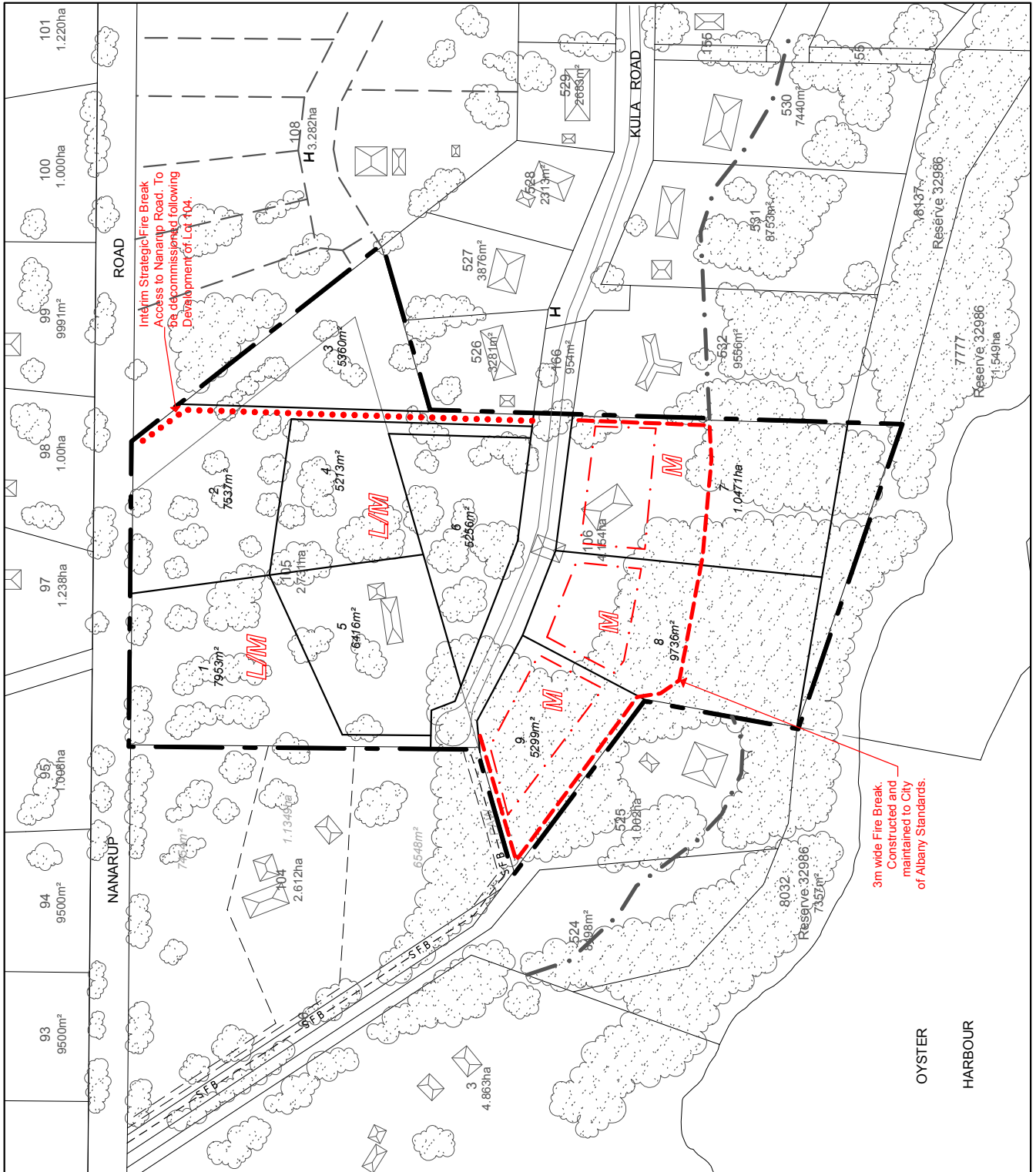
LEGEND

- Subject Land
- Existing Vegetation
- Existing Buildings
- Existing Hydrants
- Existing Low Fuel Link
- Proposed Low Fuel Link
- Strategic Fire Break
- Interim Strategic Fire Break
- Indicative Building Envelope
- Low to Moderate Fire Hazard
- Moderate Fire Hazard

ORIG A4
SCALE 1:3000

BAL Construction & Building Protection Zone Requirements

- Lots 1 - 6 BAL 12.5
- Flat open woodlands / parkland.
- 20m Building Protection Zone to be provided.
- Building Location free within setback constraints.
- Lots 7 - 9 BAL 19
- 5° slope to woodland.
- 30m Building Protection Zone to be provided.
- Building Envelopes Defined.



14-06-FF(B)

PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

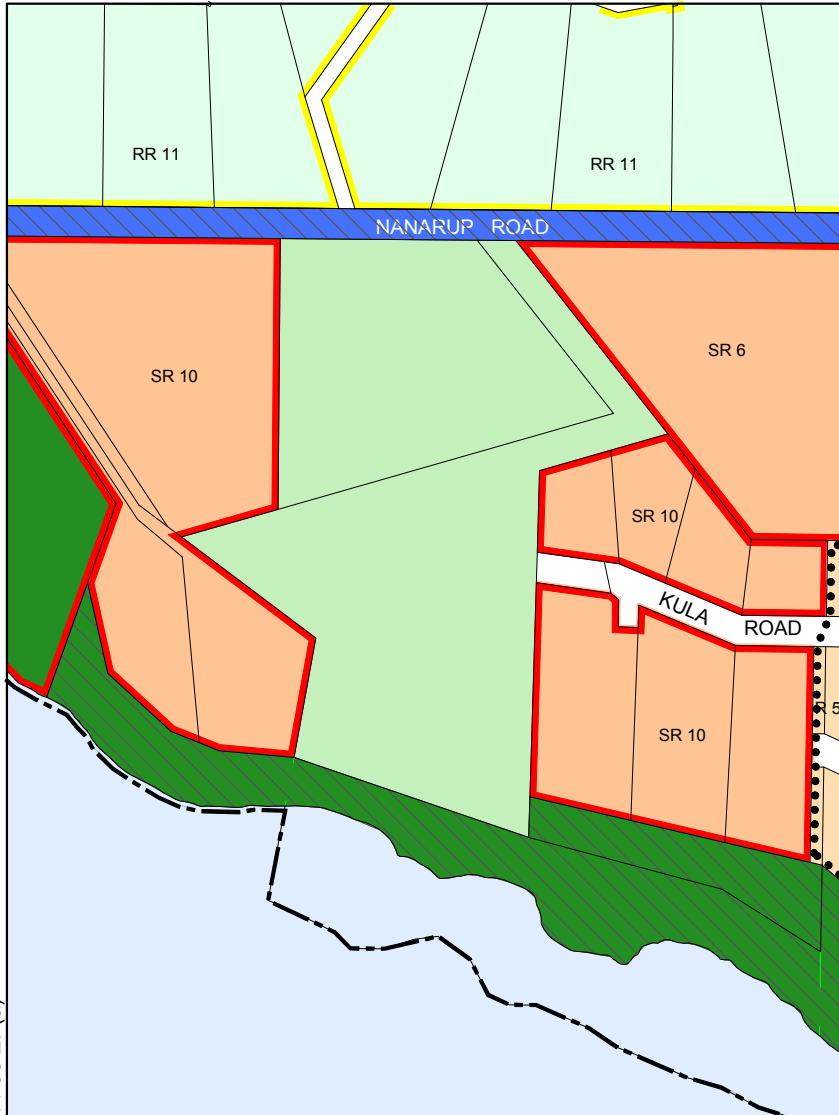
LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 6

The City of Albany under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

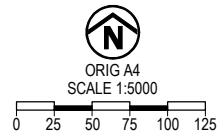
- i. Rezoning of Lot 105 and a portion of Lot 106 Nanarup Road, Lower King, from the 'General Agriculture' zone to the 'Special Residential' zone (SR10).*
- ii. Transferring a portion of Lot 106 Nanarup Road, Lower King, from the 'General Agriculture' zone to the 'Parks and Recreation' Reserve.*
- iii. Including Lots 105 & 106 Nanarup Road, Lower King, within Schedule 15 – Special Residential Zones Area No. 10.*
- iv. Amending the Scheme Maps accordingly.*

Existing Zoning

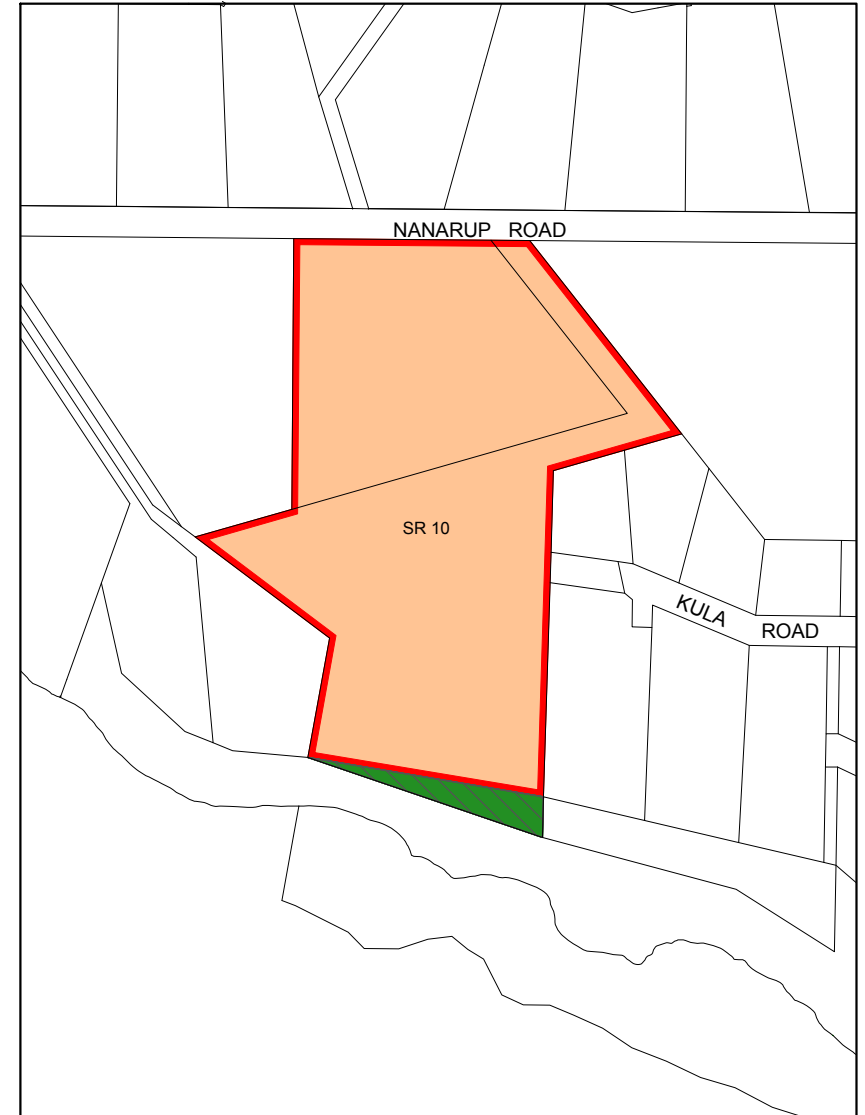


LEGEND

- Municipal Boundary
- R Code Boundary
- LOCAL SCHEME RESERVES**
- Parks & Recreation
- Priority Road
- ZONES**
- Residential
- Special Residential
- Rural Residential
- General Agriculture
- Caravan & Camping



Proposed Zoning













14-06-ZP(e)

AYTON BAESJOU
PLANNING

11 Duke Street
Albany WA 6330
Ph 9842 2304 Fax 9842 8494

CITY OF ALBANY
LOCAL PLANNING SCHEME No. 1
AMENDMENT NUMBER 6

LEGEND

-  Subject land
-  Foreshore Reserve
-  Existing Structures
-  Existing Vegetation
-  Proposed Revegetation
-  100m High Water Mark
-  Low Fuel Link
-  8m wide Pedestrian Access Way (Emergency Access / Strategic Fire Break)
-  Right of Way
-  Areas of Dense Invasive Weed Cover

- Lots where the keeping of stock may be considered.
- ▲ Lots where building envelopes are not to exceed 1200m² refer Provision 5.5).

NOTES:

- All building envelopes are to be located north of the low fuel link (refer Provision 5.5).
- Uniform fencing on lot boundaries to Council's satisfaction.
- No direct access from Lot 104 to Nanarup Road.
- Subject to provision 6.4 & 6.5 - No boundary fencing shall be permitted south of the low fuel link.
- Subject to provision 7.2 & 14.0 - Invasive weeds to be controlled and areas incrementally revegetated.



SCALE 1:2 000
DATE Sept.'97

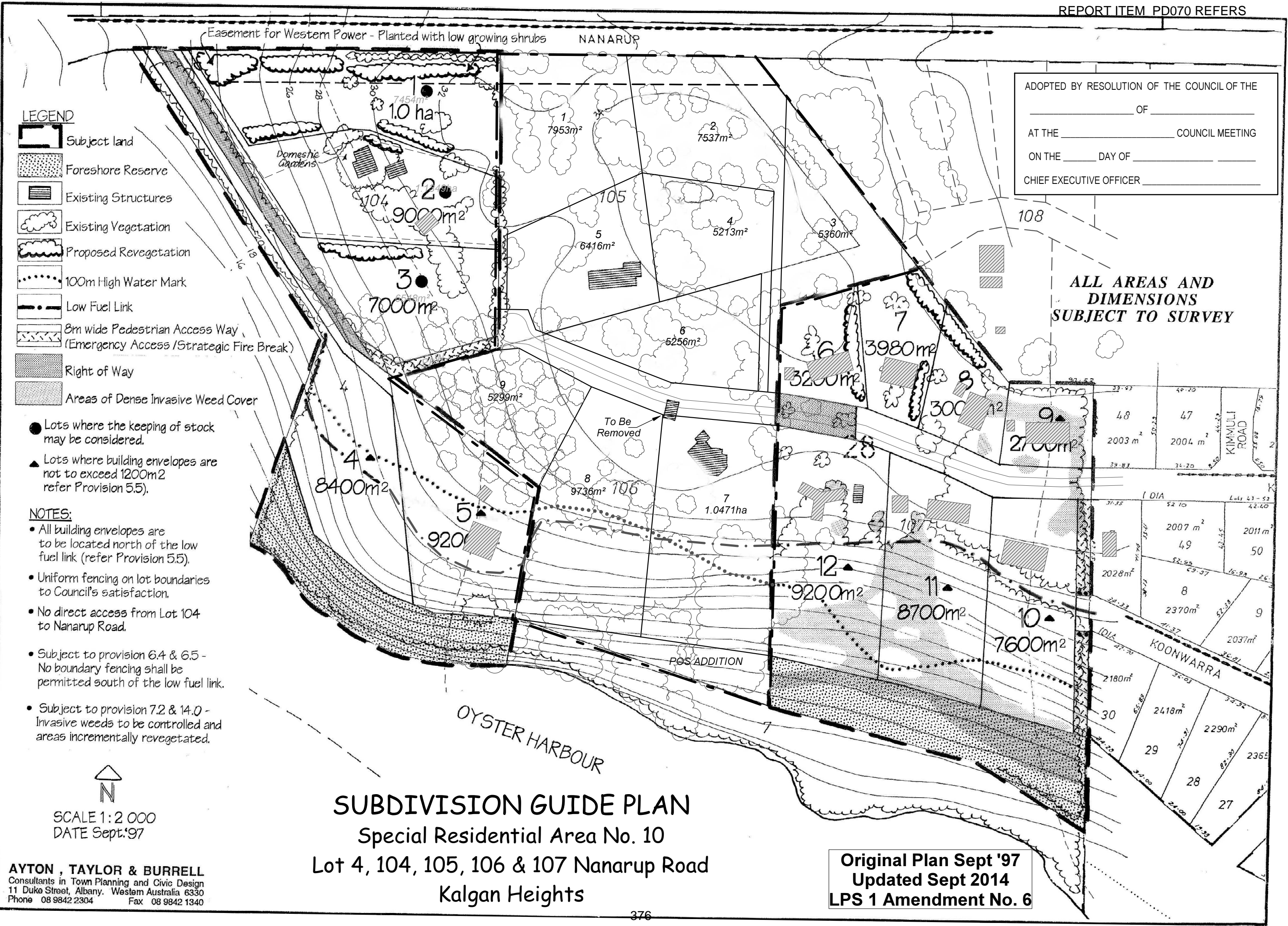
AYTON, TAYLOR & BURRELL
Consultants in Town Planning and Civic Design
11 Duke Street, Albany, Western Australia 6330
Phone 08 9842 2304 Fax 08 9842 1340

SUBDIVISION GUIDE PLAN
Special Residential Area No. 10
Lot 4, 104, 105, 106 & 107 Nanarup Road
Kalgan Heights

Original Plan Sept '97
Updated Sept 2014
LPS 1 Amendment No. 6

ADOPTED BY RESOLUTION OF THE COUNCIL OF THE _____ OF _____
AT THE _____ COUNCIL MEETING
ON THE _____ DAY OF _____
CHIEF EXECUTIVE OFFICER _____

ALL AREAS AND DIMENSIONS SUBJECT TO SURVEY



ADOPTION

Adopted by resolution of the Council of the City of Albany at the Meeting of the Council held on the _____ day of _____ 20_____.

Mayor

Chief Executive Officer

FINAL APPROVAL

Adopted for final approval by resolution of the City of Albany at the Meeting of the Council held on the _____ day of _____ 20_____ and the Common Seal of the City of Albany was hereunto affixed by the authority of a resolution of the Council in the presence of:

Mayor

Chief Executive Officer

Recommended/Submitted for Final Approval

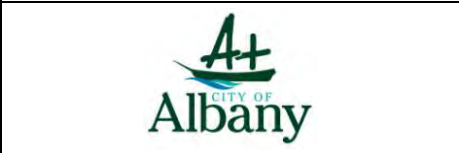
**Delegated Under S.16
of the PD Act 2005**

Date

Final Approval Granted

Minister for Planning

Date



Area Plan

1:8000





Site Plan

1:1500





Harley Dykstra

PLANNING & SURVEY SOLUTIONS

Amendment No.10

Lot 11 (No.264) Nanarup Road, Kalgan

City of Albany Local Planning Scheme No.1

Prepared by Harley Dykstra Pty Ltd for R and JL Buegge

ALBANY

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FS 536019

PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME
CITY OF ALBANY

LOCAL PLANNING SCHEME NO.1

AMENDMENT NO.10

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

1. Rezoning Lot 11 (No.264) Nanarup Road, Kalgan from 'Residential R1' to 'Residential R5', and amending the Scheme Maps accordingly;

Dated this _____ day of _____ 20____ .

CHIEF EXECUTIVE OFFICER

DOCUMENT CONTROL

Control Version	DATE	Status	Distribution	Comment
A	13.10.14	Draft	Client	Draft for Comment and Approval
B	10.11.14	Final	City of Albany	Final Document for Lodgement with the City of Albany
C				
D				
E				

Prepared for: Mr Robert Buegge

Prepared by: SDP

Reviewed by: LB and SD

Date: 10.11.14

Job No & Name: 13688 Buegge

Version: B

DISCLAIMER

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Please note that the information in this report may not be directly applicable towards another client. The Consultant warns against adapting this report's strategies/contents to another land area which has not been researched and analysed by the Consultant. Otherwise, the Consultant accepts no liability whatsoever for a third party's use of, or reliance upon, this specific document.

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MINISTER FOR PLANNING

PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

LOCAL AUTHORITY:	CITY OF ALBANY
DESCRIPTION OF TOWN	
PLANNING SCHEME:	LOCAL PLANNING SCHEME NO.1
TYPE OF SCHEME:	DISTRICT PLANNING SCHEME
NO. OF AMENDMENT:	AMENDMENT NO.10
REZONING LOT 11 (NO.264) NANARUP ROAD, KALGAN FROM 'RESIDENTIAL R1' TO 'RESIDENTIAL R5' AND AMENDING THE SCHEME MAPS ACCORDINGLY.	

1 INTRODUCTION & PROPOSAL

The purpose of this Amendment to the City of Albany Local Planning Scheme No.1 (LPS 1) is to rezone Lot 11 (No.264) Nanarup Road, Kalgan (herein referred to as the subject site) from *Residential R1* to *Residential R5*.

This proposal has sound planning grounds, as justified by the following:

- The subject site is located directly adjoining the Great Southern Grammar School;
- The subject site is directly adjoined by lots of a minimum size of 2599m², which is more reflective of the R5 density coding of the Residential Design Codes (R-Codes);
- The land has been demonstrated to be capable of supporting additional density of residential development, as indicated in the attached Site Capability Assessment (**Appendix B**); and
- The rezoning of the subject site to a higher density would be reflective of the development pattern in the immediate vicinity and would finalise the enclave of residential development in this locality.

As was evidenced in the previous submission on the draft LPS 1, the proposal to increase the residential density on the subject site is strategically sound. Subsequently, following officer comments being prepared on the submission and adoption of that recommendation by the Council of the City of Albany, the landowner has sought the preparation of a Site Capability Assessment to demonstrate that the subject site is capable of the higher density of residential development, particularly relating to on-site effluent disposal.

It is respectfully requested that the City of Albany initiate the proposal to rezone the subject site to 'Residential R5' in LPS 1.

1.1 Objectives of Amendment

The following key objectives are applicable to the Amendment:

- Providing for the finalisation of the development pattern in this locality;
- Providing appropriately located and serviced lots adjacent to a highly popular private school;
- Respecting the landform and providing future subdivision and development opportunities that consider the site's opportunities and constraints.

1.2 Project History

1.2.1 Submission on draft LPS 1

During the public advertising period of the draft LPS 1, a submission was made by Harley Global Pty Ltd (now Harley Dykstra Pty Ltd) on behalf of the landowners of the subject site. In summary, the submission requested that the subject site be zoned *Residential R5* through the gazettal of LPS 1, as justified by the following:

- The 'R5' density would be more consistent with the existing development in the immediate vicinity, with lot sizes smaller than that which would normally occur within a R1 density area;
- The higher density of development would be more consistent with the City's objectives for residential development, given it enables a better utilization of land where that land has been proven to be capable of supporting such a use;
- Make efficient use of the subject site, which has connections to reticulated water, power and telecommunications.

Due to the timing of the submission period, a Land Capability Assessment was not able to be provided supporting the further subdivision of the subject site, as submissions closed in July and late winter testing is more appropriately carried out in late August/early September. The submission also included a draft Subdivision Guide Plan to show the proposed subdivision and development of the subject site. This has also been included within this Amendment, identified as a Subdivision Concept Plan (attached in **Appendix C**).

In responding to the submission, the City's Planning Department comment, which was adopted by the Council of the City of Albany, was:

"The ALPS includes the subject area in the Rural Residential designation surrounding by the Major Public Purpose Use for the grammar school (Strategic Map: Urban Map 9B).

5a/f

Comments noted. The lot is zoned Rural under existing TPS3 whilst the adjoining lots to the east are zoned Residential. Irrespective of ALPS, this lot has been zoned Residential under draft LPS 1 which is supported by the submission.

This lot and the 3 lots to the east have been included within the Residential Zone in draft LPS 1 presumably to reflect their size and general use for residential purposes rather than rural or rural residential. All of the lots are included within the R1 density code.

Whilst the landowners intentions are clear from the submission and the land may have more potential than reflected in the R1 density coding, any change to increase the amount of lots on Lot 11 or the other lots should be supported by an appropriate land capability assessment for consideration and approval by the City to determine the maximum potential for the land. Until this is completed, no change to the density is supported.

Conclusion

There are no modifications required to the draft LPS1."

As is evidenced in the above, whilst the City of Albany did not adopt the recommendations of the submission to rezone the land to *Residential R5*, the reasoning for not adopting the submission was not on a strategic basis, but rather the demonstration of land capability for proposed development. It is intended for this document to provide the additional information needed to demonstrate to the City of Albany that the subject site is capable of *Residential R5* development.

1.2.2 Strategic Consideration

Albany Local Planning Strategy (ALPS)

As was previously outlined in the officer's comments responding to a submission on the draft LPS 1, the subject site is identified as 'Rural Residential' by the ALPS. However, this classification of the subject site was not deemed consistent with the prevailing land use, being low density residential in a small enclave between the Great Southern Grammar School and Kalgan River/Oyster Harbour. This resulted in the subject site being rezoned to 'Residential R1' by the gazettal of LPS1.

As commented by the officer, any further increase in the density of land use on the subject site would need to be accompanied by a Land Capability Assessment, demonstrating the ability of the land to support a higher density of residential development without connection to reticulated sewer, which is not envisioned to be available in the locality for the long term.

Accordingly, when considering the proposal to rezone the subject site to *Residential R5*, it is not believed that the strategic identification of the subject site for 'Rural Residential' within ALPS should be considered with any weight, as this was clearly dismissed by Council and the City's Planning Officers when considering the zoning of the land in LPS 1.

2 CONTEXT ANALYSIS

2.1 Site Description

2.1.1 Location and Description

The subject site is comprised of Lot 11 (No.264) Nanarup Road, Kalgan. The subject site has a total area of 1.45ha. The subject site is 15km from the Albany CBD via Nanarup, Lower King and Ulster Roads and Lockyer Avenue.

For a location plan, refer to **Figure 1**.

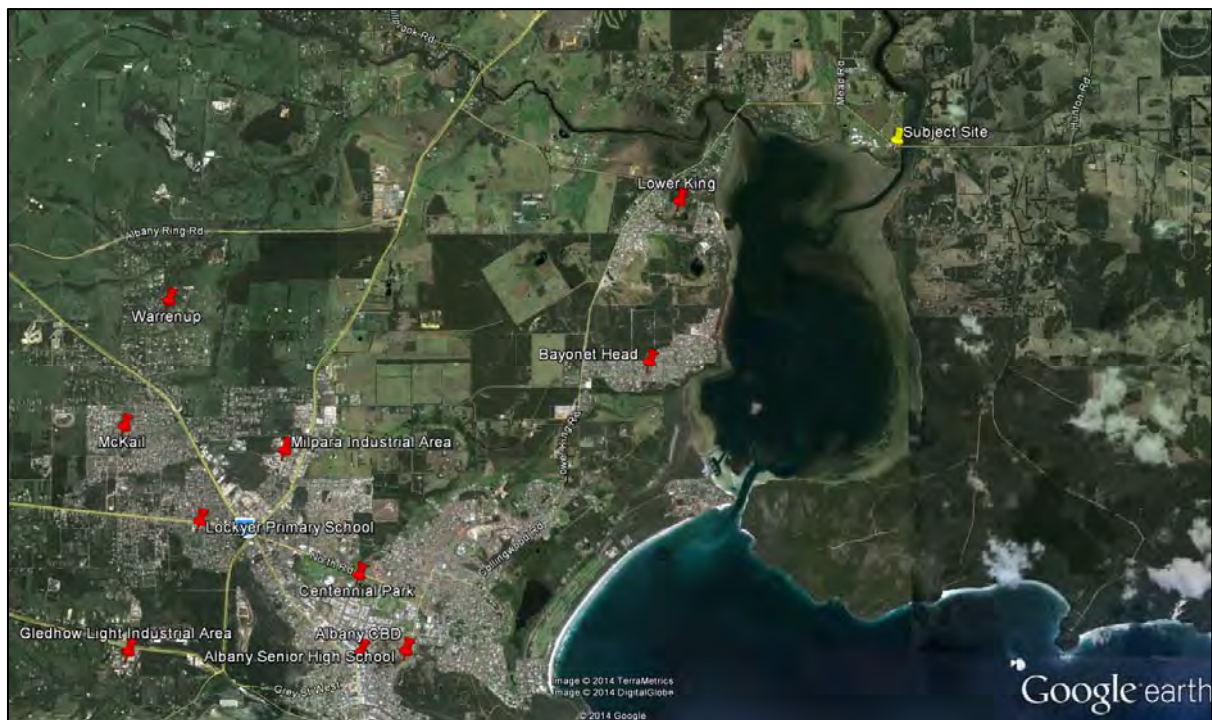


Figure 1: Location Plan

[Source: Google Earth]

2.1.2 Land Ownership

The registered proprietors of the subject site are Robert Christian Buegge and Jaime Lea Buegge. The legal description of the subject site is detailed in **Table 1. Appendix A** provides the Certificate of Title applicable to the Amendment.

Lot Description	Lot Area	Certificate of Title	Landowner Details
Lot 11 on Diagram 42859	1.45ha	Volume: 1352 Folio: 621	Robert Christian Buegge & Jaime Lea Buegge

Table 1: Land ownership details.

2.2 Land Use

2.2.1 Existing Land Use

The subject site is currently majority cleared and used as residential property mixed with lifestyle uses.

2.2.2 Surrounding Land Use and Zonings

The subject site is surrounded by a variety of zones and reserves (refer to **Figure 2** below).

Adjoining the subject site to the east and accessed via Kalgonak Lane is land zoned *Residential R1*. This land contains three (3) lots which are between 2599m² - 5980m² in area. These lots are used for low density residential uses. Interestingly, the lot sizes of the existing lots do not comply with the density allocated to them (*R1*), which has a minimum lot size of 8500m², as outlined by Clause 5.6.2 (a) of LPS 1. The intent of the proposed rezoning is to increase the density of development on the subject site to mirror existing neighbouring residential development. At this time, the Amendment does not include the neighbouring lots to be rezoned to *Residential R5*, as this would likely give subdivision potential to Lot 10, over which a land capability assessment has not been undertaken. Furthermore, the City of Albany did not include these at this density in LPS 1.

To the west and south of the subject site is land reserved for *Public Use (School)* by LPS 1, being the Great Southern Grammar School. Adjacent to the subject site on Nanarup Road (north) is land zoned *Caravan and Camping* by LPS 1, which is used for the Kalgan River Chalets and Caravan Park. Also adjacent to the north is land reserved for *Parks and Recreation Reserve*, which contains the Albany Rowing Club and access to the Kalgan River.

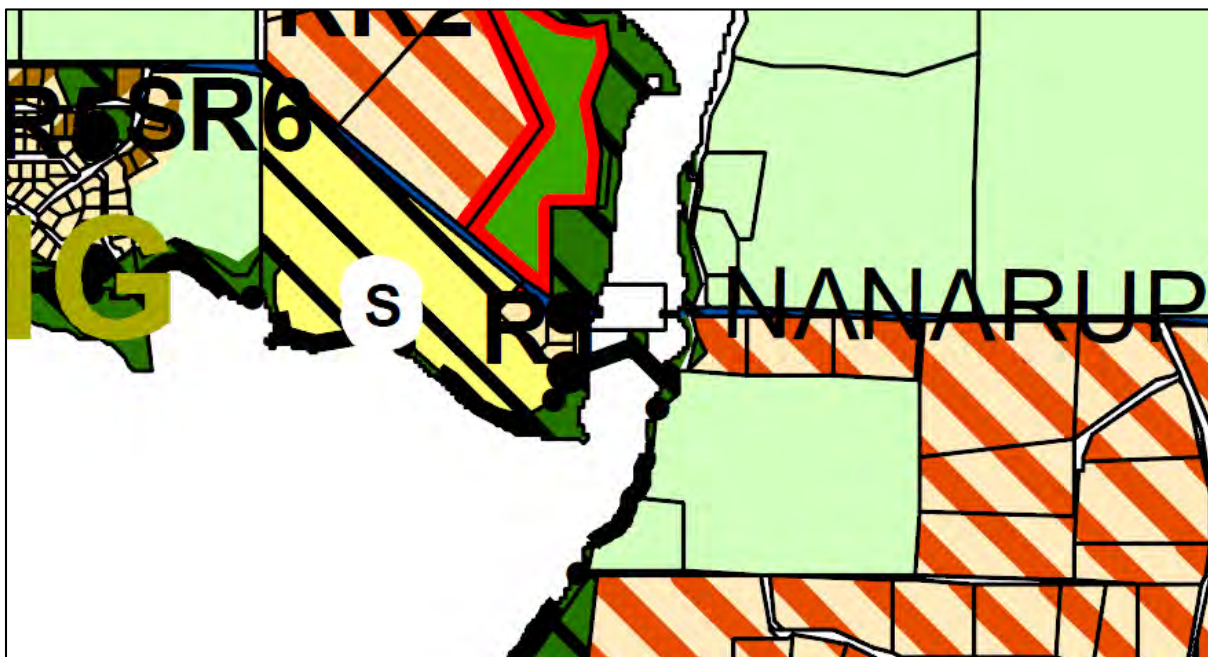


Figure 2: Land Zoning

[Source: City of Albany]

2.3 Community Consultation

In accordance with the requirements of the *Planning and Development Act 2005*, the Amendment is required to be advertised for 42 days for public submissions. These submissions are then presented to Council at its final consideration of the Amendment.

2.4 Environmental

2.4.1 Topography

The subject site is flat, with an elevation less than 5m AHD.

2.4.2 Land Capability

Following the lodgment of the submission on LPS 1 with the City of Albany, the landowner commissioned the preparation of a Site Capability Assessment by Great Southern Bio Logic, which is included in **Appendix B**. A summary of the results is outlined below:

- The site is suitable for the receipt of on-site effluent disposal;
- Test Pit F was the only test pit with less than 500mm clearance to groundwater. In all other test pits clearance to groundwater was in excess of 900mm;
- The soils of the site have medium permeability;
- The Phosphorous Retention Index (PRI) results were generally good across the site, with all test pits having soils with a high PRI within their profile;
- The site is likely to be compliant with the requirements of the *Draft Country Sewerage Policy* should it be subdivided.

As evidenced in the Site Capability Assessment prepared by Great Southern Bio Logic, the site is capable of receiving on-site effluent disposal in accordance with the requirements of the *Draft Country Sewerage Policy* and the City of Albany/Health Department of Western Australia.

2.4.3 Remnant Vegetation

The subject site has been cleared of remnant vegetation, with a small number of remnant trees and fence-line trees scattered throughout. A number of remnant trees are located on the boundary of the subject site, forming a visual distinction between it and land owned and managed by Great Southern Grammar School.

2.5 Bush Fire Hazard Management

A Fire Management Plan has not been prepared as part of the Amendment documentation. The subject site would not be considered to have any moderate to extreme fire hazard features. Furthermore, the land surrounding the subject site is either fully cleared or parkland cleared, with fuel levels maintained. As such, it is believed that fire would not pose a risk to any development proposed for the subject site.

2.6 Setback to Nanarup Road

As is shown on the Subdivision Concept Plan, it is proposed to implement screening vegetation along the boundary of Nanarup Road, primarily as a means of screening development from the road and maintaining the rural nature of the area. The width and type of screening will be discussed with the City of Albany at the time of subdivision, however, it is envisaged that it will be similar to that employed by the Kalgan Heights Estate fronting Nanarup Road.

2.7 Infrastructure

2.7.1 Access

Access to the subject site is via two crossovers onto Nanarup Road. As depicted on the Subdivision Concept Plan (**Appendix C**), it is intended for primary access to the subject site to be from a road connecting to the existing access to Kalgonak Lane, which will connect with a small internal road reserve to service the proposed lots. Please be advised that this method of access would be subject to approval at the time of subdivision.

Should the attached Subdivision Concept achieve approval, it is envisaged that the existing crossovers to Nanarup Road will be removed.

2.7.2 Services

Water

A reticulated water service is currently available from Nanarup Road and is connected to the subject site. It is envisaged that this service would be of sufficient capacity to service the relatively small subdivision and development proposed for the subject site.

Power

The subject site is currently serviced by an overhead low voltage power supply. New transformers and switch gear will be required throughout to service future subdivision and development.

On-site Effluent Disposal

The size of the proposed lots and distance from the Water Corporations Albany Sewerage Scheme requires that future development is serviced by on-site effluent disposal. As is demonstrated in the Site Capability Assessment prepared by Great Southern Bio Logic, the subject site is capable of supporting on-site effluent disposal through the use of alternative treatment units (ATUs).

When considering the ability of enforcing the use of ATUs on the subject site for future residential development, attention is drawn to Clause 5.8.2.2 of LPS 1, which states:

“The Local Government shall require the use of alternative treatment effluent disposal systems, in the following situations:

- (a) *Where the setback requirements of clause 5.3.6 cannot be achieved;*
- (b) *Where soil conditions are not conducive to the retention of nutrients on-site;*
- (c) *In low-lying areas; and*
- (d) *In areas where there is a perched winter water table.”*

As such, it is believed that the Amendment demonstrates through the Land Capability Assessment that the land is capable of supporting on-site effluent disposal and through LPS 1 demonstrates that the City will be able to impose appropriate controls on on-site effluent disposal.

Telecommunications

The subject site is currently connected to telecommunications and will retain this connection as a result of future subdivision and development.

3 PLANNING CONTEXT

3.1 State and Regional Planning

Applicable State Planning Policies are SPP1 – “State Planning Framework Policy (variation No.2)”, SPP3 “Urban Growth and Settlement” and SPP3.1 – “Residential Design Codes” (R-Codes). There are a number of applicable Development Control Policies (DCP), with those summarized below including DCP2.3 “Public Open Space in Residential Areas” and DCP2.5 “Special Residential Zones”

3.1.1 State Planning Policy No.1 – State Planning Framework Policy

The purpose of SPP1 is to bring together the State and regional policies that apply to land use and development in Western Australia and to establish the general principles for land use planning and development in WA. SPP1 states “*the primary aim of planning is to provide for the sustainable use and development of land*”. It goes on to quantify this through identifying and expanding upon the five key principles that further define this statement, environment, community, economy, infrastructure and regional development.

The Amendment meets the objectives of SPP1, as evidenced by the following:

- The Amendment is not consistent with ALPS, however, the use of the land for residential purposes was also recognized in the zoning of the land by LPS 1, the more up-to-date document;
- The Amendment has demonstrated that the land is capable and the proposal is environmentally sound;
- It will provide an alternative source of land for settlement in the Albany hinterland, compliant with adjoining development and complimentary to the neighbouring Great Southern Grammar School;
- It will support the local economy by allowing the growth of Albany and providing an additional housing/lifestyle choice;
- The proposal will have minimal ability to generate land use conflicts; and
- It will utilise existing infrastructure for servicing.

The proposed Amendment is consistent with the objectives of SPP1.

3.1.2 State Planning Policy No.3 – Urban Growth and Settlement

The purpose of SPP3 is to promote a sustainable settlement pattern across Western Australia. The objectives of the policy are:

It specifically mentions rural residential development in Section 5.6 “Managing rural-residential growth”. When planning for rural-residential development, it states that development should-

- *“To promote a sustainable and well planned pattern of settlement across the State, with sufficient and suitable land to provide for a wide variety of housing, employments, recreation facilities and open space.*
- *To build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities.*
- *To manage the growth and development of urban areas in response to the social and economic needs of the community and in recognition of relevant climatic, environmental, heritage and community values and constraints.*
- *To promote the development of a sustainable and liveable neighbourhood form which reduces energy, water and travel demand whilst ensuring safe and convenient access to employment and services by all modes, provides choice and affordability of housing and creates an identifiable sense of place for each community.*
- *To coordinate new development with the efficient, economic and timely provision of infrastructure and services.”*

With regards to creating sustainable communities, SPP3 also outlines that:

- *“making the most efficient use of land in existing urban areas through the use of vacant and under-utilised land and buildings, and higher densities where these can be achieved without detriment to neighbourhood character and heritage values; the cost effective use of urban land and buildings, schools and community services, infrastructure systems and established neighbourhoods; and promoting and encouraging urban development that is consistent with the efficient use of energy.*

The Amendment complies with the requirements of SPP3, as evidenced by the following points:

- As evidenced in the Land Capability Assessment and recent zoning of the subject site by LPS 1, the land is capable of supporting an increased density of residential development;
- The future subdivision of the land would be consistent with the existing subdivision pattern established by neighbouring development;
- The future subdivision of the land would provide for residences located in close proximity to the Great Southern Grammar School, which although a private school, provides a valuable community service;
- The future subdivision of the land would utilise existing infrastructure; and
- The future subdivision would provide an alternative housing choice to that commonly available in the Albany market.

3.1.3 State Planning Policy No.3.1 – Residential Design Codes (R-Codes)

The R-Codes provide a comprehensive basis for the control of residential development throughout Western Australia. The residential density of the land, which is currently R1 and is proposed to R5, corresponds with the density coding listed within Table 1 of the R-Codes, which outlines the requirements for residential development. Table 2 shows the requirements of the R5 density coding proposed by this Amendment.

1 R-Code	2 Dwelling type	3 Minimum site area per dwelling	5 Minimum frontage	6 Open space		7 Minimum setbacks		
				min total (% of site)	min outdoor living (m ²)	primary street	secondary street	other/rear
R5	Single house or grouped dwelling	Min 2000	30	70	-	20	10	10

Table 2: Extract of R-Codes Table 1 for the R5 density coding.

As shown above, the R5 density coding has a minimum lot area of 2000m². This is reflected on the Subdivision Concept Plan. The Subdivision Concept Plan complies with all other minimum requirements of the R5 density of the R-Codes.

3.1.4 Development Control Policy No.2.3 Public Open Space in Residential Areas

The purpose of DCP2.3 is to provide requirement for the contribution to or provision of public open space in residential subdivisions. The requirement is listed in Clause 3.1.1 of DCP2.3, which states that:

“The Commission's normal requirement in residential areas is that, where practicable, 10 percent of the gross subdivisible area be given up free of cost by the subdivider and vested in the Crown under the provisions of Section 20A of the Town Planning and Development Act, 1928 (as amended) as a Reserve for Recreation. In determining the gross subdivisible area the Commission deducts any land which is surveyed for schools, major regional roads, public utility sites, municipal use sites, or, at its discretion, any other nonresidential use site.”

Clause 3.1.5 of DCP2.3 is noted in that it is likely that a public open space contribution will be required of the future subdivision of the land, if it proposes more than five (5) lots as is shown on the Subdivision Concept Plan.

As shown on the Subdivision Concept Plan, it is not proposed to make a land contribution to public open space at this time. This is due to the size of the property, which is unlikely to yield public open space that is of a useful size or location for use by the community. As such, it is likely that if the subject site were developed for in excess of five (5) lots that a cash-in-lieu contribution to public open space would be made in accordance with Clause 4.3 of DCP2.3.

3.1.5 Development Control Policy No.2.5 Special Residential Zones

The purpose of DCP2.5 is to provide guidance and requirements applicable to special residential development throughout Western Australia. Whilst the proposal is not for a *Special Residential* zone to be applicable to the subject site, the type of development proposed is consistent with a *Special*

Residential zone. As such, the requirements of DCP2.5 have been taken into consideration for the Amendment.

Clause 3.2 lists the following design and servicing requirements for Special Residential development:

- Lot sizes of 2000m² and greater;
- Connection to a reticulated water supply;
- Road networks should take account of topography and be unobtrusive, with long cul-de-sacs being avoided;
- Lot size and design should achieve the best possible amenity;
- Direct access from major roads should not be permitted;
- Building setbacks should be considered to create a more interesting and spacious environment; and
- Provision of underground power should be required.

The Amendment complies with the requirements of DCP2.5, as evidenced by the following comments:

- Lot sizes and design comply with the requirements of the R5 density of the R-Codes;
- Future subdivision will be connected to reticulated water, underground power and telecommunications;
- The Subdivision Concept Plan has taken consideration of topography and lot constraints, to provide a development that will be screened from Nanarup Road and consistent with surrounding development; and
- No direct access will be provided from Nanarup Road, with access being obtained through Kalgonak Lane.

Clause 4.3 of DCP2.5 also mentions that any *Special Residential* zones should be considered the maximum density considered for the land, given that retrofitting these zones for a higher density of development is extremely difficult. The higher density development of the subject site is highly unlikely, given the likelihood that reticulated sewer would not be connected to the locality.

Although the Amendment is not for a *Special Residential* zone, it has been demonstrated that the proposal complies with DCP2.5 given the Amendment proposes lot sizes consistent with this zone type.

3.1.6 Draft Country Sewerage Policy

The Department of Health released a draft policy for wastewater treatment and dispersal in 2003. The draft Country Sewerage Policy sets minimum requirements for on-site wastewater disposal. This includes:

- A minimum lot size of 2000m² shall be established in areas proposed to utilise on-site effluent disposal techniques;

- The use of Aerobic Treatment Units (ATU's) where a clearance of 500mm from surface to groundwater can be achieved;
- The use of septic systems where a clearance of 2000mm from surface to groundwater can be achieved and suitable soil types are found; and
- A 30 metre setback to a dam, stream or private water supply.

As is outlined in the Site Capability Assessment, late winter testing of the Amendment Site was undertaken. It identified that the Amendment Site does meet the requirements of the draft Country Sewerage Policy.

3.2 Local Planning

3.2.1 City of Albany Local Planning Scheme No.1

Under the City of Albany Local Planning Scheme No. 1 (LPS 1), the subject site is zoned *Residential R1*. The purpose of the Amendment to LPS 1 is to rezone the subject site to *Residential R5*. The objectives of the *Residential* zone is:

- (a) *Maintain the character and amenity of established residential areas and ensure that new development, including alterations and additions, is sympathetic with the character and amenity of those areas;*
- (b) *Promote and safeguard the health, safety and convenience of residential areas and inhabitants by:*
 - (i) *Providing for increased dwelling density and encouraging urban renewal and consolidation in areas where land is sufficiently close to existing or planned facilities and infrastructure available to service the development;*
 - (ii) *Providing a range of lot sizes in appropriate locations to meet the needs of the City and its anticipated growth in population;*
 - (iii) *Providing for adaptable housing in areas where facilities are available to meet the needs of aged and disabled residents within the City;*
 - (iv) *Identifying those areas where a residential land use development requires additional development control standards to safeguard residents against an adjoining non-compatible land use activity or hazard;*
 - (v) *Encourage high standards of innovative housing design, which recognize the need for privacy and energy efficient design, whilst ensuring the building bulk and scale is compatible with adjoining sites; and*
 - (vi) *In low density areas, ensure that development (including dwellings, structures, outbuildings and access) are sited and designed to:*
 - *Minimise the clearing of stands of remnant vegetation and promotes the replanting of endemic vegetation species;*

- *Enhance the visual amenity of the area;*
- *Avoid areas affected by natural hazards or other impacts (including bushfire risk and/or floodplains, heavy haulage routes and the like) to reduce the potential for harm to buildings and their occupants.*

The Amendment is consistent with the objectives of the *Residential* zone, as evidenced by the following justification:

- (a) The purpose of the Amendment is to increase the density of residential development permitted on the subject site, and mirrors residential development which has already occurred to the east;
- (b) The proposal allows for the consolidation of land already identified for residential uses;
- (c) The development is appropriately located, being directly adjoining the Great Southern Grammar School and convenient to local goods and services provided in Lower King;
- (d) Suitable development controls are included within LPS 1 and other guiding policy documents of the City of Albany to control the future development of the subject site;
- (e) The proposal is on already cleared land, therefore, no further clearing will be needed to facilitate development. Furthermore, it is likely that some screening vegetation will be included to Nanarup Road as a result of future subdivision;
- (f) Subdivision of the subject site will enhance the visual amenity of the area, by allowing for the upgrading of the Kalgonak Lane entrance to Nanarup Road and implementation of vegetation screening; and
- (g) The subject site is relatively risk free from hazards such as flooding and bush fire, hence making it suitable for further subdivision and development.

It is believed that the Amendment complies with the objectives of the *Residential* zone of the City of Albany Local Planning Scheme No.1, as well as meeting general policies for lot size rationalization and use of existing zoned land for development.

4 SUBDIVISION CONCEPT PLAN

4.1 Introduction

To demonstrate the likely subdivision of the land, a Subdivision Concept Plan has been included with the proposed Amendment. Although the final subdivision layout will be determined upon lodgment of a future subdivision application, this Subdivision Concept demonstrates the key principles of subdivision that would be applicable.

4.2 Design Philosophy

The key influences on the design are as follows:

- Complying with the requirements of the Residential Design Codes relating to the R5 density, such as minimum size of 2000m² and minimum frontage of 30m;
- No direct access to Nanarup Road;
- Improvement of Kalgonak Lane intersection with Nanarup Road;
- Ensuring that the proposed subdivision complemented adjoining development; and
- Ensuring that the visual amenity of the area is not compromised by future subdivision.

The proposed subdivision aims to create large lot residential form that is responsive to landform and constraints and formalizes the final extent of residential uses in the locality.

4.3 Constraints to Development

As outlined in this report, there are relatively few constraints to the subdivision of the land, other than those listed in policy documents. Constraints for on-site effluent disposal and access have been adequately addressed to ensure that subdivision has relatively little impact.

4.4 Outcomes of Design Exercise

The Subdivision Concept Plan achieved the following:

- A lot yield of six (6) lots on the subject site, all with a minimum lot size of 2000m² and a minimum lot width of 30m;
- Access to the proposed lots by a 14.2m road reserve with 6m wide road and cul-de-sac, the minimum permitted by the City of Albany and Liveable Neighbourhoods, connecting to the existing Kalgonak Lane gravel access track;
- 10m separation between the proposed access road and Nanarup Road; and
- Implementation of screening vegetation along the northeast and northwest lot boundaries, from which the subject site is viewable from Nanarup Road.

The proposed subdivision design complies with all of the necessary requirements of the City of Albany and State Government and will achieve a long-term, rationalised use of the subject site.

5 JUSTIFICATION AND CONCLUSION

Amendment No.10 to the City of Albany Local Planning Scheme No.1 seeks to amend the density of the subject site from *Residential R1* to *Residential R5*.

This Amendment achieves the following objectives:

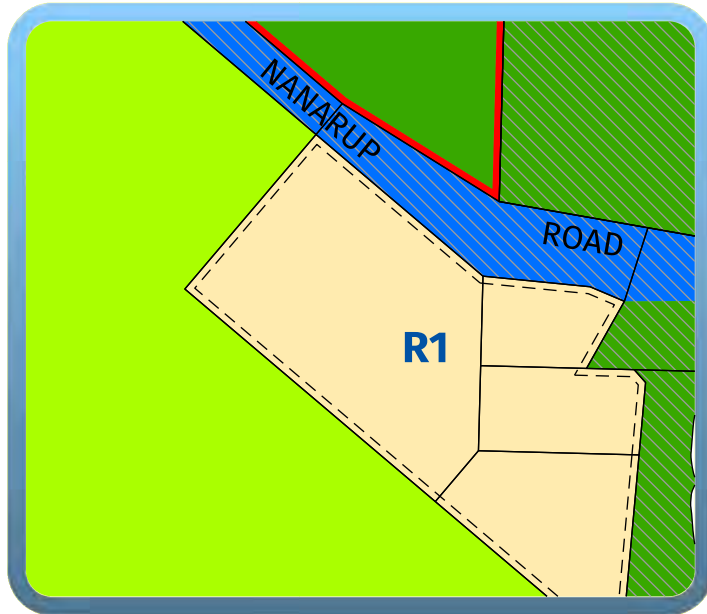
- Rationalising the *Residential* zoned land use of the subject site in accordance with the neighbouring land uses;
- Finalising residential land uses in this locality;
- Ensuring that the subject site can meet relevant requirements, such as site capability for on-site effluent disposal and the like;
- Addressing the key constraints and opportunities of the Amendment Site in a sensitive manner that will permit development;
- Providing for suitable land uses which complement their surrounding context.

The purpose of this Amendment is to increase the density of permitted residential development on the subject site, by demonstrating the site is capable and the land use can complement those surrounding. Endorsement of the Amendment is therefore respectfully requested.

CITY OF ALBANY

Local Planning Scheme No. 1

Amendment No. 10



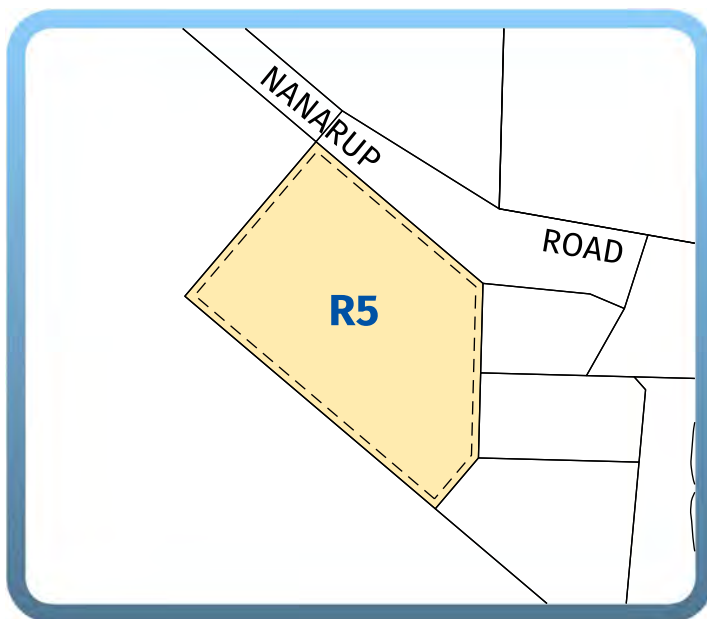
Existing Zoning

LOCAL SCHEME RESERVES

-  Local Roads
-  Priority Road
-  Parks and Recreation

ZONES

-  Residential
-  Caravan & Camping
-  Clubs & Institutions



Proposed Zoning



PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

LOCAL PLANNING SCHEME NO.1

AMENDMENT No.2

The City of Albany under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

1. Rezoning Lot 11 (No.264) Nananarup Road, Kalgan from 'Residential R1' to 'Residential R5', and amending the Scheme Maps accordingly

PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

LOCAL PLANNING SCHEME NO.1

AMENDMENT No.10

ADOPTION:

Adopted by resolution of the Council of the City of Albany at the meeting of the Council held on the _____ day of _____ 201__:

Mayor

Chief Executive Officer

FINAL APPROVAL:

Adopted for final approval by resolution of the City of Albany at the meeting of the Council held on the _____ day of _____ 201__ and the Common Seal of the municipality was pursuant to that resolution hereunto affixed in the presence of:

Mayor

Chief Executive Officer

RECOMMENDED / SUBMITTED FOR FINAL APPROVAL:

Delegated under s.16 of the PD Act 2005

Date

FINAL APPROVAL GRANTED:

Minister for Planning

Date

APPENDIX A – CERTIFICATE OF TITLE

Amendment No.10 to City of Albany Local Planning Scheme No.1

Lot 11 (No.264) Nanarup Road, Kalgan

WESTERN



AUSTRALIA

REGISTER NUMBER 11/D42859	
DUPLICATE EDITION 2	DATE DUPLICATE ISSUED 18/5/2005

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME
1352FOLIO
621

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 11 ON DIAGRAM 42859

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

ROBERT CHRISTIAN BUEGGE
JAIME LEA BUEGGE
BOTH OF 14 CAMPBELL ROAD, ALBANY
AS JOINT TENANTS

(T J200109) REGISTERED 2 MARCH 2005

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. J281725 MORTGAGE TO WESTPAC BANKING CORPORATION REGISTERED 12.5.2005.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1352-621 (11/D42859).
PREVIOUS TITLE: 403-82A.
PROPERTY STREET ADDRESS: 264 NANARUP RD, KALGAN.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

APPENDIX B – SITE CAPABILITY ASSESSMENT – GREAT
SOUTHERN BIO LOGIC



Site Capability Assessment of Lot 11 Nanarup Road - Kalgan

Prepared for: Robert Buegge
Lot 11 Nanarup Road
Kalgan, 6330

Report Date: 22 November 2013
Project Ref: GSBL126-site capability-Lot 11
Nanarup Rd-V1

Written and Submitted By

A handwritten signature in blue ink, appearing to read "J. Spencer", is written over a faint, light blue circular stamp.

Jeremy Spencer
Senior Environmental Scientist

RECORD OF DISTRIBUTION

No. of copies	Report File Name	Report Status	Date	Prepared for:	Initials
1	GSBL126-site capability- Lot 11 Nanarup Rd-V1	V1	22 November 2013	Robert Buegge	JS
1	GSBL126-site capability- Lot 11 Nanarup Rd-V1	V1	22 November 2013	Great Southern Bio Logic	JS

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LIST OF ATTACHMENTS

Tables

Table 1: PRI Results from Lot 11 Nanarup Rd

Figures

Figure 1: Lot 11 Nanarup Rd showing the selected Test Pit Sites

Appendices

Appendix A: Soil Profile Photographs

Appendix B: Soil Permeability Calculations

Appendix C: PRI Laboratory Analysis Certificates

EXECUTIVE SUMMARY

Great Southern Bio Logic Pty Ltd were engaged by Robert Buegge of Lot 11 Nanarup Road, Kalgan (the site) to conduct a site capability assessment of the site, located approximately 11km northwest of the Albany Central Business District. The work has been undertaken in support of a proposal to subdivide the existing Lot 11 into multiple lots.

The site is situated on the floodplain of the Kalgan River close to the mouth of the river, where it meets Oyster Harbour. The Kalgan River lies approximately 140 meters to the east of the closest point of the existing lot and Oyster Harbour is approximately 300 meters to the south.

The site is predominantly level and cleared however some trees remain around the boundary and there is a slight elevation in the rear of the block where a localised granite extrusion is located.

The primary guideline document that provides guidance on the criteria required to assess suitability of a site to receive waste water effluent is the *Draft Country Sewerage Policy*. Should a site require ATU's, which it is understood to be the case for Lot 11 Nanarup Road, the *Code of Practice for the Design, Manufacture, Installation and Operation of Alternative Treatment Unit's (ATU's) Serving Single Dwellings* also applies.

Field observations recorded on the day of soil sampling identified a generally consistent soil profile of medium grained sands with high organic matter content over mottled kaolin clays. A layer of gravelly clay, consisting of lateritic gravel within the kaolin, was consistently identified at the top of the clay horizon.

Groundwater was encountered as a thin lens perched above the impeding clay horizon in four of the six Test Pit locations. Gravels in the upper clay horizon assist the permeability of the clay allowing groundwater to infiltrate through. The minimum vertical separation from observed groundwater ranged from 0.45m to 1.5m.

Soil permeability testing was conducted in the in-situ soil at each Test Pit location. All permeability results are consistent with silty sands with medium permeability.

PRI results were generally high to very high across the site, however 3 results are below the required PRI value of 20. These are the upper horizon from TP-A and TP-E, plus the soils from the intersection of the two soil horizons at TP- C. In all of these three Test Pits, soils with high PRI values were identified within the soil profile and would enable adequate retention of phosphorous released in treated effluent.

It is considered that Lot 11 Nanarup Road has sub-surface characteristics suitable for receiving treated wastewater effluent for disposal onsite.



1 INTRODUCTION

1.1 Background

Great Southern Bio Logic Pty Ltd were engaged by Robert Buegge of Lot 11 Nanarup Road, Kalgan (the site) to conduct a site capability assessment of the site, located approximately 11km northwest of the Albany Central Business District. The work has been undertaken in support of a proposal to subdivide the existing Lot 11 into multiple lots.

Requested works include an assessment of soil profile including the depth to groundwater, soil permeability and determination of the soils phosphorous retention index (PRI). The investigation was conducted using the Draft Subdivision Layout Plan as provided by Robert Buegge which identifies 6 separate lots.

1.2 Site Characteristics

The site is situated on the floodplain of the Kalgan River close to the mouth of the river, where it meets Oyster Harbour. The Kalgan River lies approximately 140 meters to the east of the closest point of the existing lot and Oyster Harbour is approximately 300 meters to the south.

The site is predominantly level and cleared however some trees remain around the boundary and there is a slight elevation in the rear of the block where a localised granite extrusion is located.

Observations from the test pit excavations showed a soil profile across the site consisting of sands over clay with each horizon of varied depth. More detail on the soil profile is provided in Section 4.

1.3 Objective

The objective of the site capability assessment was to:

- Assess the capacity of the soils to receive and effectively infiltrate local stormwater runoff and waste water effluent onsite in accordance with relevant guidelines.

1.4 Scope of Works

In order to meet the above objective the following scope of works was undertaken:

- Excavation of six test pits to log the soil profile and determine the depth of any ground water that may be present;
- Completion of six soil permeability tests using a constant head permeameter;
- Collection of soil samples from between the surface and the base of each test pit for Laboratory analysis of the soils Phosphorous Retention Index (PRI); and
- Reporting of results in a manner suitable for inclusion in the proposed application for subdivision.

Results of the permeability tests will be used to calculate the saturated hydraulic conductivity, or K_{sat} , of the soil. These values can be used by engineers in determining infiltration capacity and determining the specification of onsite infiltration systems.

Results of the PRI analysis provides an indication of the suitability of soils to receive treated waste water effluent for onsite disposal. The observed separation distance between the water table and the surface also provides information about the suitability of the site for on-site disposal of effluent.



2 METHOD

The investigation involved an intrusive site investigation to log the soil profile, collect soil samples, assess soil permeability and investigate the presence of the water table. The site investigation was conducted on Tuesday 29 October 2013 and involved the excavation of six soil test pits to a maximum depth of 2.2m below ground level (BGL), visual assessment of groundwater depth, six permeability tests and collection of samples for laboratory analysis of soil PRI. Excavation of the test pits was performed using a back hoe fitted with an extension boom to allow excavation to the required depths.

Permeability testing was conducted using a CL26100 constant head permeameter as suitable for compliance with Australian Standard 1547 and a hand augured 0.5m test hole. Permeability tests were performed following saturation of the soil which was achieved by filling the hole with water and allowing a minimum period of ten minutes for the water to saturate surrounding soils. The hole was then re-filled and following equilibration of water levels in the permeameter and the hole, the fall of water in the permeameter reservoir was measured at fixed time intervals until a consistent rate of fall within the permeameter had been established. The time taken for a fall of 10cm within the permeameter was determined from the average of two consecutive tests comprising timed readings at each location. The permeability testing and K_{sat} calculations were conducted with reference to the constant head permeability test methods presented in Standards Australia (2000). Permeability testing was conducted at each of the test pit locations shown in Figure 1.

Depth to ground water was determined by visual assessment after excavation and soil samples were collected from 0.1mBGL and just above the impeding layer at each test pit location. Soil samples were sent via overnight courier to Analytical Reference Laboratory (ARL) for analysis of PRI. The soil sampling locations are shown on Figure 1.

A PRI result provides a measure of the phosphorus-holding capacity of a soil. PRI is important as it provides an indication of whether phosphorus discharged in wastewater effluent will be bound to soils and held in the soil profile or leached directly to receiving environments. High PRI scores indicate a high phosphorus retention capability.



3 ASSESSMENT CRITERIA

The primary guideline document that provides guidance on the criteria required to assess suitability of a site to receive waste water effluent is the *Draft Country Sewerage Policy*. Should a site require ATU's, (Alternative Treatment Unit) which it is understood to be the case for Lot 11 Nanarup Road, the *Code of Practice for the Design, Manufacture, Installation and Operation of Alternative Treatment Unit's (ATU's) Serving Single Dwellings* also applies.

3.1 Draft Country Sewerage Policy

The *Draft Country Sewerage Policy* identifies;

Minimum site requirements, irrespective of on-site wastewater disposal system;

- Having at least 0.5 metres separation between the natural ground surface and the highest known groundwater level. Correctly engineered drainage solutions may be used to increase the clearance between the natural surface and the highest known ground water level, subject to such drainage works being environmentally acceptable.
- The site is required to have soil characteristics capable of receiving all wastewater likely to be generated on the site without risk to public health or the environment. Sites that have shallow or no permeable topsoils, underlain by rock or low permeability soils (eg. clays, etc.) are less able to receive wastewater. On such sites, proposals will need to be supported by a wastewater system design based on the site's capability and the proposal's details.
- The natural land slope on which wastewater disposal is to occur shall not exceed a one in five gradient. Proposals for sites with gradients exceeding this may be engineered to allow on-site wastewater disposal.
- Proposals should demonstrate that the intended wastewater disposal design prevents the risk of wastewater run-off.

Additional requirements defined in the *Draft Country Sewerage Policy* include setbacks from Environmentally Sensitive Areas;

- Setbacks from water courses defined as 100m in areas with soils with a PRI of less than 5 and 30m for areas with soils with a PRI greater than 5.

The Department of Health (DoH, 2001) state that soils receiving wastewater effluent require a PRI in excess of 20. Soils with a PRI value below 20 may require amendment via the addition of materials with a high PRI such as gypsum or clays.

3.2 Code of Practice for the Design, Manufacture, Installation and Operation of ATU's Serving Single Dwellings

The code of practice presents specifications for the design and manufacture of ATU's, requirements for the installation and operation of ATU's and defines site criteria required for lots receiving effluent from ATU's including setbacks and irrigation areas.

Minimum site requirements vary with regard to unit design and site characteristics. The full set of criteria for ATU's can be found in the code and should be assessed closely prior to installation. Relevant physical criteria associated with the site include:

- A minimum irrigation area of 150m²;
- A minimum of 300mm of permeable soil over impermeable soil horizons for surface irrigation;



- Soil PRI values greater than 20; and
- A minimum vertical separation from the maximum groundwater levels of 0.5m.



4 RESULTS AND DISCUSSION

4.1 Soil Profile

Field observations recorded on the day of soil sampling identified a generally consistent soil profile of medium grained sands with high organic matter content over mottled kaolin clays. A layer of gravelly clay, consisting of lateritic gravel within the kaolin, was consistently identified at the top of the clay horizon. The sand horizon extended from the surface to varied depths ranging from approximately 0.4mBGL (TP-B) to 0.83mBGL (TP-E). The clay horizon extended from the base of the sand horizon to the base of excavation in each test pit.

The only exception to this was noted in Test Pit C. Test Pit C is located at the rear of the block on a minor localised elevation where fractured granite protrusions were noted (Figure 1). In this location the basic soil profile remains similar to the remainder of the block however granite floaters of varying size were encountered. Test Pit C was excavated to a depth of 2mBGL demonstrating that the granite in this area does not represent an impeding layer. Appendix A shows photos for the soil profile from each test pit.

4.2 Groundwater

Groundwater was encountered as a thin lens perched above the impeding clay horizon in five of the six Test Pit locations. As described in Section 4.1, the clay horizon consists of an over-lying layer of permeable gravelly clay over impermeable clay. The gravel assists the permeability of the clay allowing groundwater to permeate through. Groundwater was identified in Test Pits A, C, D, E & F while Test Pit B was dry. The depth of groundwater varied from 0.45mBGL in Test Pit F to 1.5mBGL in Test Pit E. Test Pit F is the only location where groundwater was identified less than the required 0.5mBGL. The next shallowest groundwater was at Test Pit D @ 0.9mBGL. Variation in the depth to groundwater is attributed to variations in surface elevation and variability of the soil profile across the site.

Groundwater levels typically peak following winter as water permeates through soil and levels are maintained while rainfall continues. The monthly rainfall for September 2013 prior to the field assessment was 174.6mm (Ave 102.2mm) while October recorded 54.6mm (Ave 78.7) including 20.8mm which fell on October 20, eleven days prior to assessment (BoM 2013). Based on this information it is considered that the results will suitably reflect typical groundwater conditions for winter.

4.3 Permeability

A summary of the field parameters and the equation used to calculate the saturated hydrological conductivity (K_{sat}) are included in Appendix B.

Based on the average time for the falling head of water to fall 10cm, the K_{sat} values for each location are as follows:

- Average time of 62.5 seconds to fall 10cm, the K_{sat} value for Test Pit A was 1.46m/day
- Average time of 78.3 seconds to fall 10cm, the K_{sat} value for Test Pit B was 1.16m/day
- Average time of 64.3 seconds to fall 10cm, the K_{sat} value for Test Pit C was 1.42m/day
- Average time of 60 seconds to fall 10cm, the K_{sat} value for Test Pit D was 1.52m/day
- Average time of 76.6 seconds to fall 10cm, the K_{sat} value for Test Pit E was 1.19m/day
- Average time of 128.6 seconds to fall 10cm, the K_{sat} value for Test Pit F was 0.71m/day



All of these results are consistent with silty sands with medium permeability.

Soil permeability at location Test Pit F is notably lower than other sites. In this area the sand horizon only extends to 0.45mBGL which is the second shallowest depth observed. A shallow lens of groundwater was also observed at 0.45mBGL suggesting that the underlying clays are impeding the drainage from this area.

4.4 Phosphorous Retention Index

Chain of Custody documentation and Laboratory certificates for the PRI analysis are presented in Appendix C. Results from the laboratory analysis are as follows:

PRI RESULTS – Lot 11 NANARUP RD			
Sample Site	Sample Depth m/BGL	Soil Type	PRI
Test Pit A	0.1	sand	6.8
	0.7	sandy gravel	252.9
Test Pit B	0.1	sand	161.2
	0.6	gravelly clay	82.2
Test Pit C	0.1	sand	158
	0.65	gravelly clay	10.9
Test Pit D	0.1	sand	125
	0.7	sandy gravel	94.8
Test Pit E	0.1	sand	4.2
	0.8	gravelly clay	846.7
Test Pit F	0.1	sand	121.8
	0.5	sandy clay	534.5

Table 1: PRI results from Lot 11 Nanarup Rd

As shown in Table 1, the PRI results are generally high to very high across the site, however 3 results are below the required PRI value of 20. These are the upper horizon from TP-A and TP-E, plus the soils from the intersection of the two soil horizons at TP- C. In all of these three Test Pits, the soils either above or below the low PRI zone, have high PRI values and would enable adequate retention of phosphorous released in treated effluent.



5 SUITABILITY FOR ONSITE EFFLUENT DISPOSAL

The following information is a summary of the results presented in Section 4 in comparison with the assessment criteria presented in Section 3.

5.1 The Draft Country Sewerage Policy

- The minimum observed vertical separation to groundwater was 0.45m at TP-F, however it was generally greater than 0.9m at all other locations. With the exception of TP-F, the vertical separation to groundwater exceeds the required minimum 0.5m.
- The general soil profile consists of sands over gravelly clay over clay. The soil profile has generally high PRI values which have medium permeability, consistent with permeability values associated with fine sand. The impermeable layer sits below 0.45mBGL at the shallowest observed point (TP-F). However at all other locations it is below 0.9mBGL. It is considered that the soil characteristics are suitable of on-site disposal of treated effluent.
- The greatest slope across the site is negligible. At no location across the site does the slope exceed the maximum allowable gradient of one in five.
- Only one site recorded a PRI value of less than 5 (TP-E@0.1m). This site occurs at a location further than the required 100m setback from the nearest water course (Kalgan River) and also had soils with a PRI value of 846 lower in the profile. All other PRI values were greater than 5 and all locations are further than the required 30m setback from the Kalgan River.

5.2 Code of Practice for the Design, Manufacture, Installation and Operation of ATU's Serving Single Dwellings

- Site plans and water treatment system designs are not yet currently available, however, the proposed lot size is sufficient to allow for the required minimum irrigation area of 150m²;
- The permeable fraction of the soil horizon extends to a minimum depth of 0.45mBGL at TP-F however is generally deeper than 0.9mBGL. The highest permeability is in the top 0.5mBGL. These depths exceed the minimum requirement of 300mm of permeable soil over impermeable soil horizons for surface irrigation;
- Only three soil samples had PRI values less than 20 however soil of suitable PRI value was identified at every Test Pit location.
- The minimum observed vertical separation to groundwater was 0.45m at TP-F, however it was generally greater than 0.9m at all other locations. With the exception of TP-F, the vertical separation to groundwater exceeds the required minimum 0.5m.

5.3 Summary

With consideration of the information presented in Sections 4 and 5, it is considered that Lot 11 Nanarup Road has sub-surface characteristics suitable for receiving treated wastewater effluent for disposal onsite. It should however be noted that in the vicinity of Test Pit F, the vertical separation to groundwater is slightly below the required minimum and soil permeability at this site was also lower than the rest of the site, but is still considered adequate.

The site conditions associated with the results from TP-F do not restrict the capacity of this area receive treated wastewater effluent however it is recommended that either:

- Detailed site investigations be undertaken to identify potentially suitable areas within proposed Lot F that are better suited to receiving treated waste water effluent; or



- Engineering solutions be explored to improve the existing conditions. Such engineering solutions may include:
 - The importation of suitable fill material to increase the vertical separation to ground water; and
 - The irrigation area allocated to receive treated waste water is larger than the required minimum area of 150m².



6 REFERENCES

BoM (2013) <http://www.bom.gov.au/climate/data/>

DoH (2001) *Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Units (ATU's)* November 2001. Department of Health, Perth, WA.

Standards Australia (2000). *AS/NZS 1547:2000 On Site domestic-wastewater management*. Standards Australia International, Strathfield, NSW.

Western Australian Office of Waste Management (1999) *Draft Country Sewerage Policy*. Western Australian Government, Perth, WA



7 LIMITATIONS

This report was prepared for Robert Buegge, solely for the purposes set out in the scope of works and it is not intended that any other person use or rely on the contents of this report.

Whilst the information contained in the Report is accurate to the best of our knowledge and belief, Great Southern Bio Logic and its agents cannot guarantee the completeness or accuracy of any of the descriptions or conclusions based on the information supplied to it or obtained during the site investigations, site surveys, visits and interviews. Furthermore, field and / or regulatory conditions are subject to change over time, and this should be considered if this report is to be used after any significant time period after its issue.

Great Southern Bio Logic and its agents have exercised reasonable care, skill and diligence in the conduct of project activities and preparation of this report. However, except for any non-excludable statutory provision, Great Southern Bio Logic and its agents provided no warranty in relation to its services or the report, and is not liable for any loss, damage, injury or death suffered by any party (whether caused by negligence or otherwise) arising from or relating to the services or the use or otherwise of this Report.

This report must be read, copied, distributed and referred in its entirety.



Figures

Site Capability Assessment – Lot 11 Nanarup Road - Kalgan



REPORT ITEM PD071 REFERS

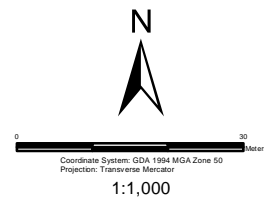
Figure 1: Lot 11, Nanarup Road showing selected Test Pit Sites



Great Southern Bio Logic does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted.

Ref: GSBL126
 Date: 15/11/2013
 Image: Albany_townsite_2007

Site Capability Assessment of Lot 11,
 Nanarup Road, Kalgan prepared for
 Robert Buegge, November, 2013





GSBL126-Site Capability-Lot 11 Nanarup Rd-V1

Appendix A

Soil Profile Photographs

GSBL126-Site Capability-Lot 11 Nanarup Rd-V1

Photograph 1: Test Pit A



Photograph 2: Test Pit B



Photograph 3: Test Pit C



Photograph 4: Granite floaters from TP-C





GSBL126-Site Capability-Lot 11 Nanarup Rd-V1

Photograph 5: Test Pit D



Photograph 6: Test Pit E



Photograph 7: Test Pit F





GSBL126-Site Capability-Lot 11 Nanarup Rd-V1

Appendix B Soil Permeability Calculations



CLIENT: Robert Buegge
 PROJECT: Site Capability
 LOCATION: Lot 11 Nanarup Rd
 SUBJECT: Constant Head Permeability Testing
 JOB NO: GSBL126
 TEST NO: TP A

Depth of water in the test hole 45 cm
 Diameter of the test hole 8 cm
 Diameter of the reservoir 7 cm
 Diameter of air inlet tube 0.7 cm
 Time taken to fall 10cm 62.5 sec

The method of calculation is described in Appendix 4.1F of AS/NZS 1547:2000 'On-site domestic waste-water management'

$$K_{sat} = \frac{4.4Q \left[0.5 \sinh^{-1} \left(\frac{H}{2r} \right) - \sqrt{\left\{ \left(\frac{r}{H^2} \right) + 0.25 \right\} + \frac{r}{H}} \right]}{2\pi H^2}$$

where

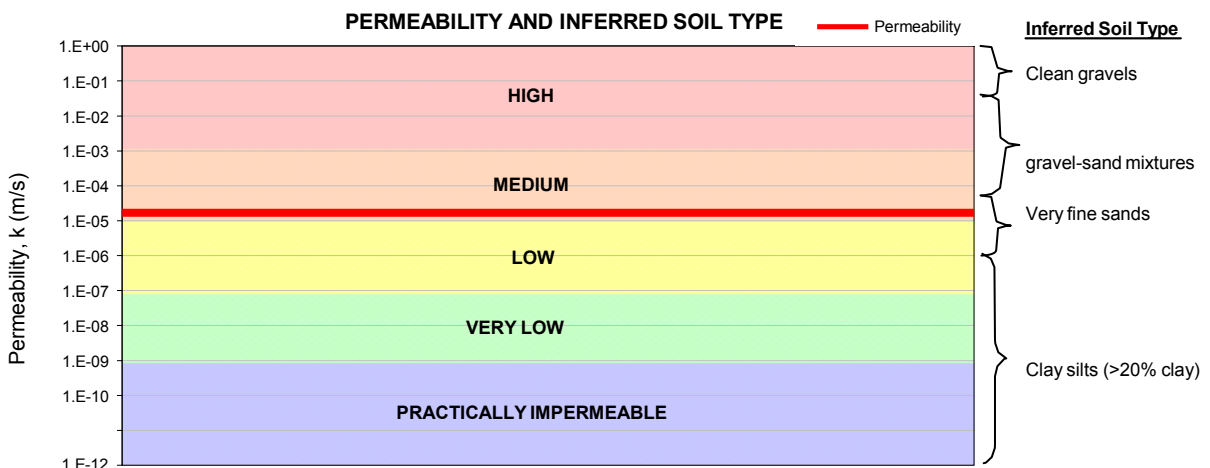
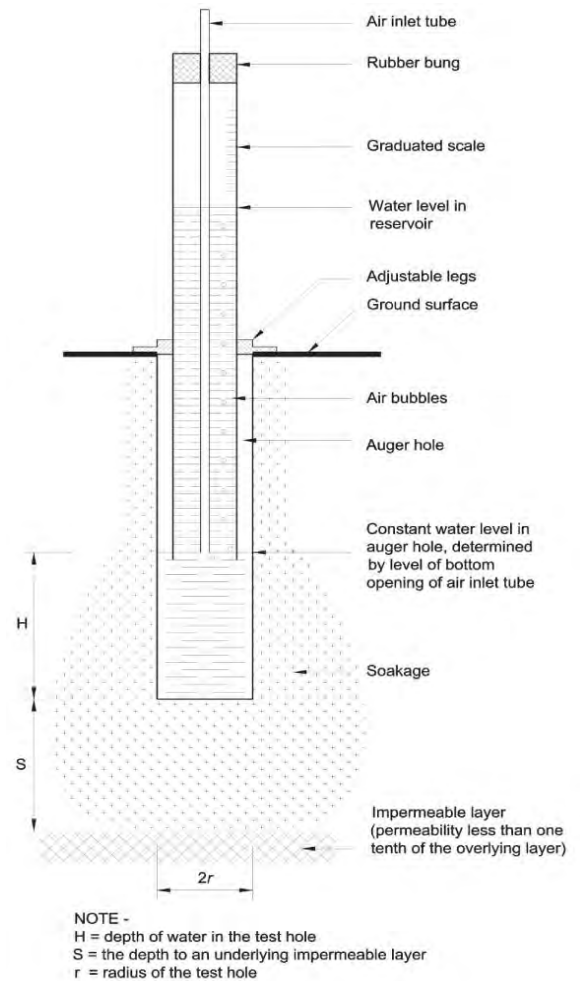
- K_{sat} = saturated hydraulic conductivity of the soil in cm/min
- 4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation
- Q = rate of loss of water from the reservoir in cm³/min
- H = depth of water in the test hole in cm
- r = radius of the test hole in cm

Rate of water loss

$Q = 0.00610$ L/sec
 365.76 cm³/min

Saturated Hydraulic conductivity

$K_{sat} = 0.1013$ cm/min
 1.46 m/day
 $1.69E-05$ m/sec





CLIENT: Robert Buegge
 PROJECT: Site Capability
 LOCATION: Lot 11 Nanarup Rd
 SUBJECT: Constant Head Permeability Testing
 JOB NO: GSBL126
 TEST NO: TP B

Depth of water in the test hole 45 cm
 Diameter of the test hole 8 cm
 Diameter of the reservoir 7 cm
 Diameter of air inlet tube 0.7 cm

 Time taken to fall 10cm 78.3 sec

The method of calculation is described in Appendix 4.1F of AS/NZS 1547:2000 'On-site domestic waste-water management'

$$K_{sat} = \frac{4.4Q \left[0.5 \sinh^{-1} \left(\frac{H}{2r} \right) - \sqrt{\left\{ \left(\frac{r}{H^2} \right) + 0.25 \right\} + \frac{r}{H}} \right]}{2\pi H^2}$$

where

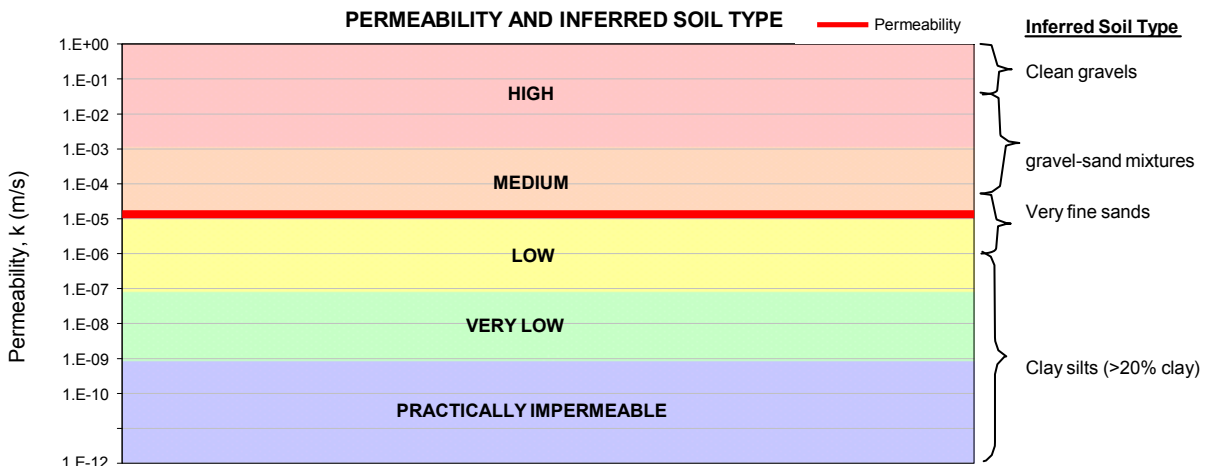
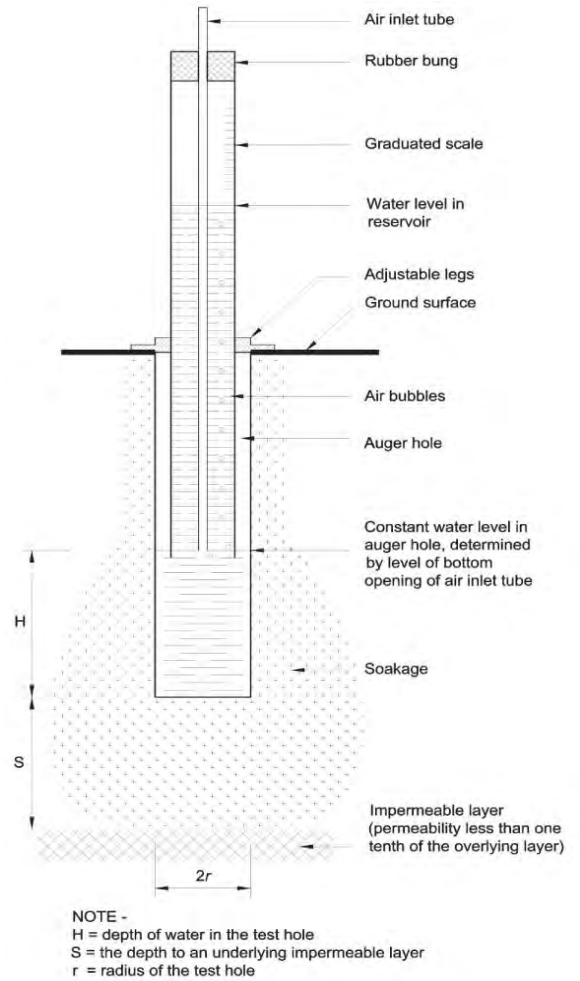
- K_{sat} = saturated hydraulic conductivity of the soil in cm/min
- 4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation
- Q = rate of loss of water from the reservoir in cm³/min
- H = depth of water in the test hole in cm
- r = radius of the test hole in cm

Rate of water loss

$Q = 0.00487$ L/sec
 291.95 cm³/min

Saturated Hydraulic conductivity

$K_{sat} = 0.0809$ cm/min
 1.16 m/day
 $1.35E-05$ m/sec





CLIENT: Robert Buegge
 PROJECT: Site Capability
 LOCATION: Lot 11 Nanarup Rd
 SUBJECT: Constant Head Permeability Testing
 JOB NO: GSBL126
 TEST NO: TP C

Depth of water in the test hole 45 cm
 Diameter of the test hole 8 cm
 Diameter of the reservoir 7 cm
 Diameter of air inlet tube 0.7 cm

 Time taken to fall 10cm 64.3 sec

The method of calculation is described in Appendix 4.1F of AS/NZS 1547:2000 'On-site domestic waste-water management'

$$K_{sat} = \frac{4.4Q \left[0.5 \sinh^{-1} \left(\frac{H}{2r} \right) - \sqrt{\left\{ \left(\frac{r}{H^2} \right) + 0.25 \right\} + \frac{r}{H}} \right]}{2\pi H^2}$$

where

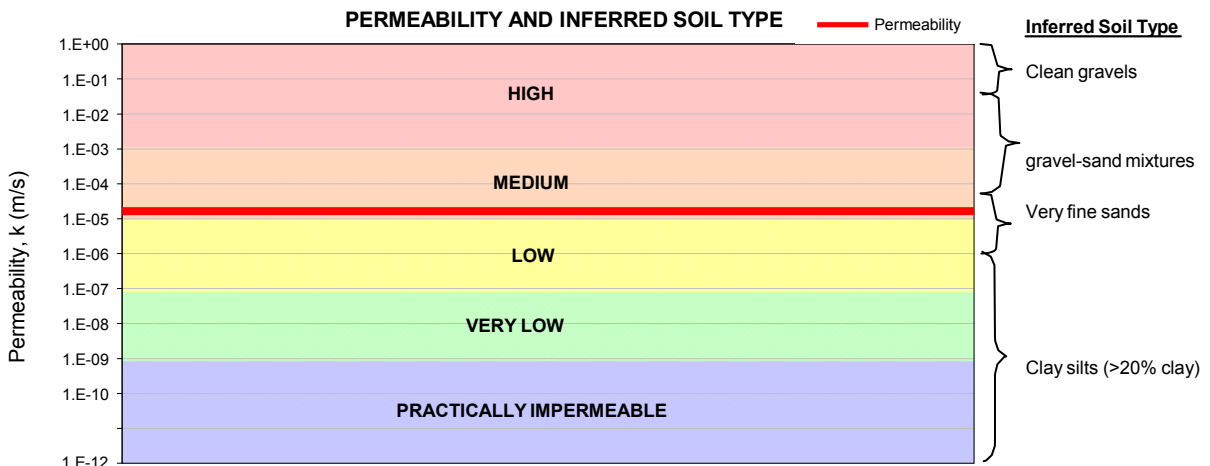
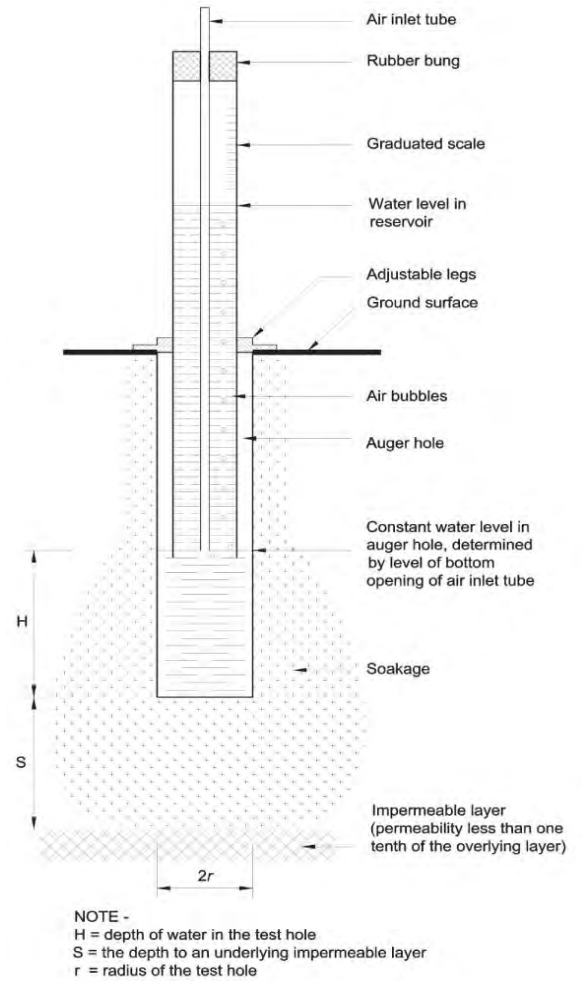
- K_{sat} = saturated hydraulic conductivity of the soil in cm/min
- 4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation
- Q = rate of loss of water from the reservoir in cm³/min
- H = depth of water in the test hole in cm
- r = radius of the test hole in cm

Rate of water loss

$Q = 0.00593$ L/sec
 355.52 cm³/min

Saturated Hydraulic conductivity

$K_{sat} = 0.0985$ cm/min
 1.42 m/day
 $1.64E-05$ m/sec





CLIENT: Robert Buegge
 PROJECT: Site Capability
 LOCATION: Lot 11 Nanarup Rd
 SUBJECT: Constant Head Permeability Testing
 JOB NO: GSBL126
 TEST NO: TP D

Depth of water in the test hole 45 cm
 Diameter of the test hole 8 cm
 Diameter of the reservoir 7 cm
 Diameter of air inlet tube 0.7 cm

 Time taken to fall 10cm 60 sec

The method of calculation is described in Appendix 4.1F of AS/NZS 1547:2000 'On-site domestic waste-water management'

$$K_{sat} = \frac{4.4Q \left[0.5 \sinh^{-1} \left(\frac{H}{2r} \right) - \sqrt{\left\{ \left(\frac{r}{H^2} \right) + 0.25 \right\} + \frac{r}{H}} \right]}{2\pi H^2}$$

where

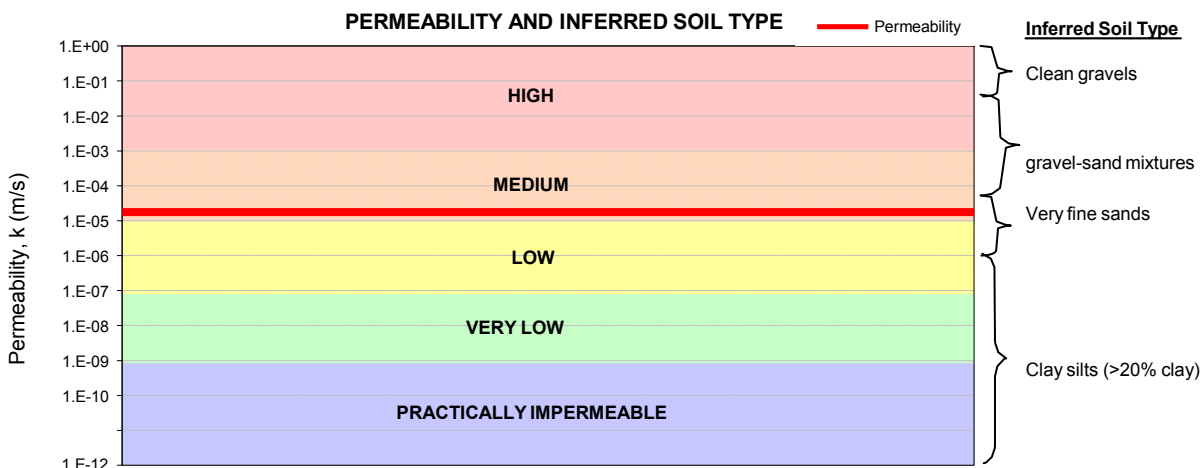
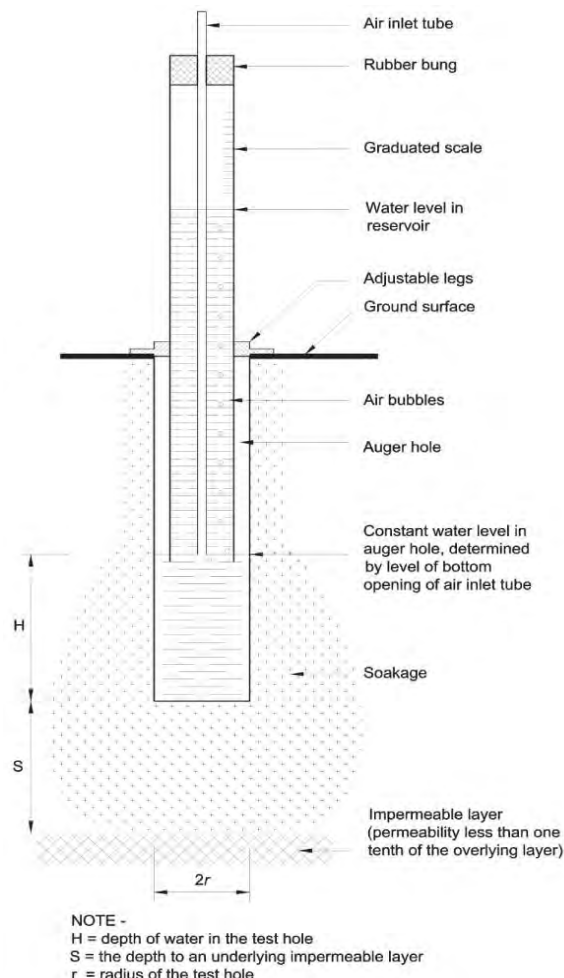
- K_{sat} = saturated hydraulic conductivity of the soil in cm/min
- 4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation
- Q = rate of loss of water from the reservoir in cm³/min
- H = depth of water in the test hole in cm
- r = radius of the test hole in cm

Rate of water loss

$Q = 0.00635$ L/sec
 381.00 cm³/min

Saturated Hydraulic conductivity

$K_{sat} = 0.1055$ cm/min
 1.52 m/day
 $1.76E-05$ m/sec





CLIENT: Robert Buegge
 PROJECT: Site Capability
 LOCATION: Lot 11 Nanarup Rd
 SUBJECT: Constant Head Permeability Testing
 JOB NO: GSBL126
 TEST NO: TP E

Depth of water in the test hole 45 cm
 Diameter of the test hole 8 cm
 Diameter of the reservoir 7 cm
 Diameter of air inlet tube 0.7 cm

 Time taken to fall 10cm 76.6 sec

The method of calculation is described in Appendix 4.1F of AS/NZS 1547:2000 'On-site domestic waste-water management'

$$K_{sat} = \frac{4.4Q \left[0.5 \sinh^{-1} \left(\frac{H}{2r} \right) - \sqrt{\left\{ \left(\frac{r}{H^2} \right) + 0.25 \right\} + \frac{r}{H}} \right]}{2\pi H^2}$$

where

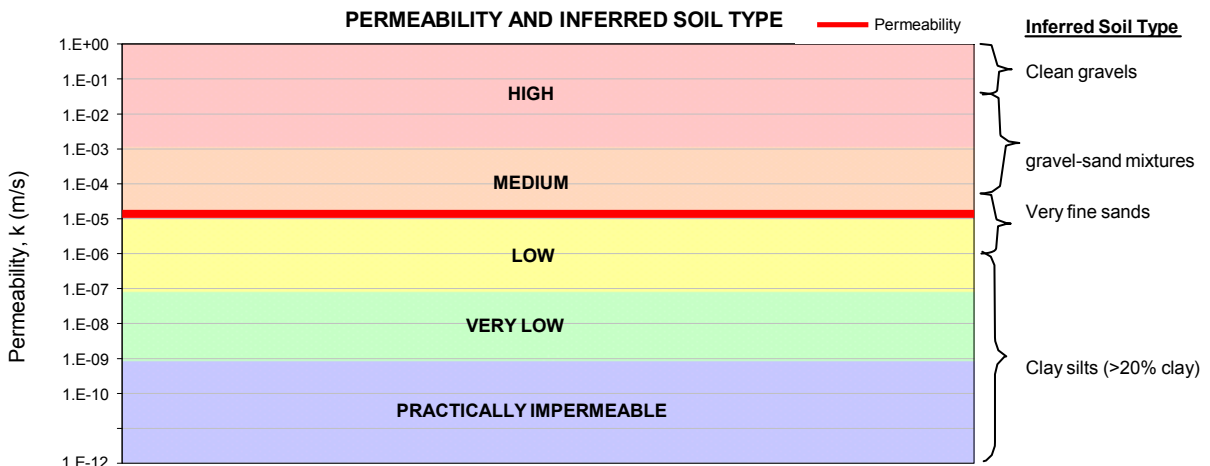
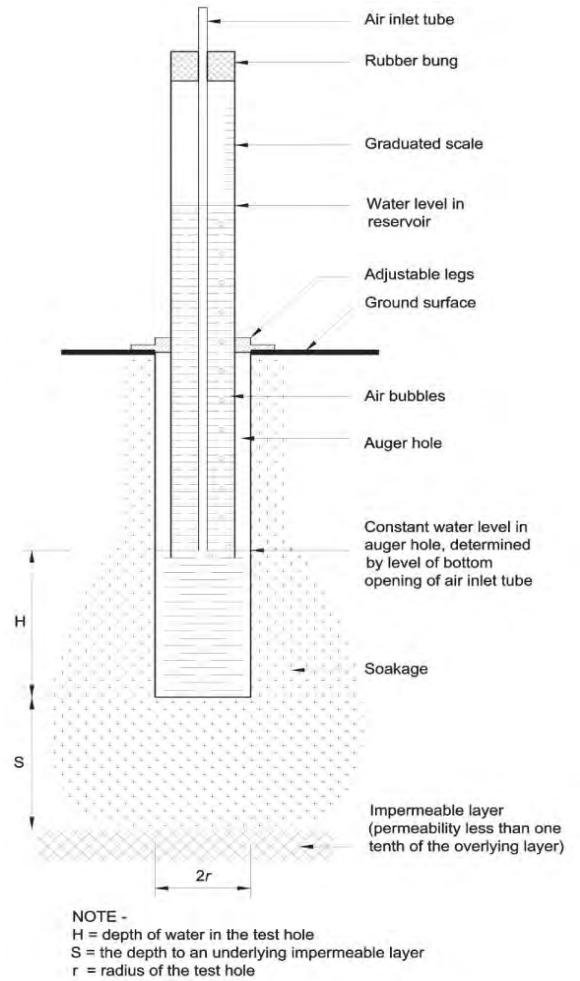
- K_{sat} = saturated hydraulic conductivity of the soil in cm/min
- 4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation
- Q = rate of loss of water from the reservoir in cm³/min
- H = depth of water in the test hole in cm
- r = radius of the test hole in cm

Rate of water loss

$Q = 0.00497$ L/sec
 298.43 cm³/min

Saturated Hydraulic conductivity

$K_{sat} = 0.0827$ cm/min
 1.19 m/day
 $1.38E-05$ m/sec





CLIENT: Robert Buegge
 PROJECT: Site Capability
 LOCATION: Lot 11 Nanarup Rd
 SUBJECT: Constant Head Permeability Testing
 JOB NO: GSBL126
 TEST NO: TP F

Depth of water in the test hole 45 cm
 Diameter of the test hole 8 cm
 Diameter of the reservoir 7 cm
 Diameter of air inlet tube 0.7 cm

 Time taken to fall 10cm 128.6 sec

The method of calculation is described in Appendix 4.1F of AS/NZS 1547:2000 'On-site domestic waste-water management'

$$K_{sat} = \frac{4.4Q \left[0.5 \sinh^{-1} \left(\frac{H}{2r} \right) - \sqrt{\left\{ \left(\frac{r}{H^2} \right) + 0.25 \right\} + \frac{r}{H}} \right]}{2\pi H^2}$$

where

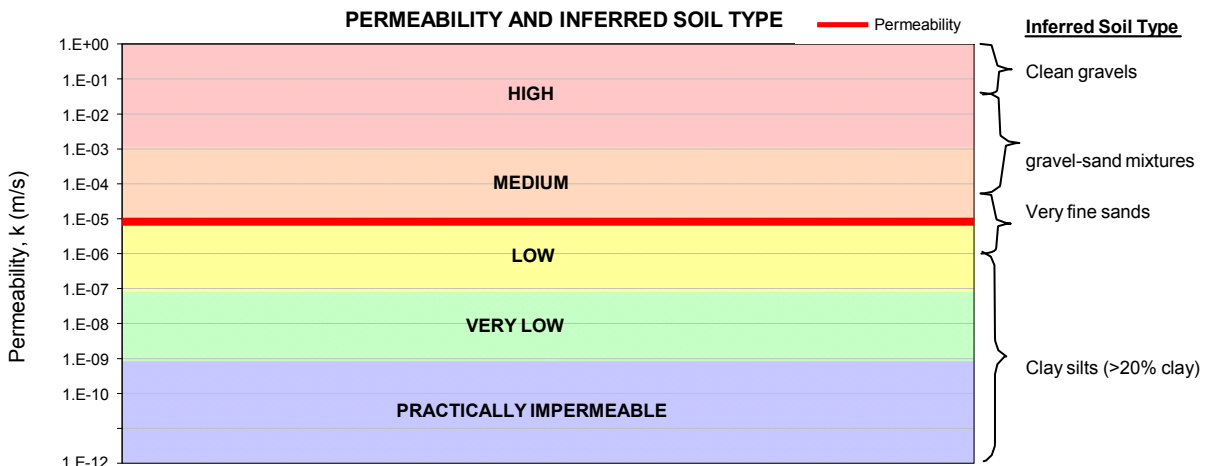
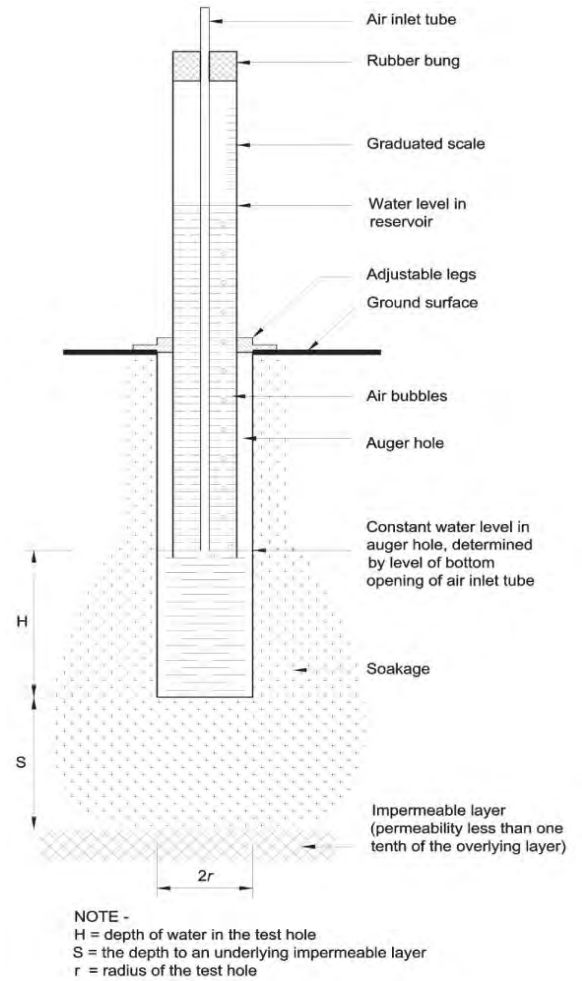
- K_{sat} = saturated hydraulic conductivity of the soil in cm/min
- 4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation
- Q = rate of loss of water from the reservoir in cm³/min
- H = depth of water in the test hole in cm
- r = radius of the test hole in cm

Rate of water loss

$Q = 0.00296$ L/sec
 177.76 cm³/min

Saturated Hydraulic conductivity

$K_{sat} = 0.0492$ cm/min
 0.71 m/day
 $8.21E-06$ m/sec





GSBL126-Site Capability-Lot 11 Nanarup Rd-V1

Appendix C PRI Laboratory Analysis Certificates



PO Box 5573
 ALBANY WA 6332
 Telephone: 0400 113 093
 gsbiologic@westnet.com.au

LABORATORY ANALYSIS & CHAIN OF CUSTODY RECORD

To: ARL Address: 46-48 Banksia Rd Welshpool Attention: Recievals Telephone: 62534444 Facsimile: Received by: MASA (ARL) Date received: 31/10/13	Project No.: GSBL126 Project: Lot 11 Nannaup Rd Results required by: gsbiologic@westnet.com.au Quote # Delivery Method: courier Sent By: Jeremy Spencer Date Delivered: 31-Oct-13
---	--

Sample Type: Groundwater Surfacewater Other: soil

PLEASE SUPPLY LABORATORY QA/QC DATA AND QUOTE PROJECT NUMBER, PURCHASE ORDER NUMBER AND DATE ON ALL CORRESPONDENCE

13-7973

PLEASE PROVIDE A SIGNED CHAIN OF CUSTODY WITH ALL RESULTS

Sample ID	Date Sampled	Container	Analyses																			
			PRI																			
-1	TP A	0.1	29-Oct-13	plastic	✓																	
-2	TP A	0.7	29-Oct-13	plastic	✓																	
-3	TP B	0.1	29-Oct-13	plastic	✓																	
-4	TP B	0.6	29-Oct-13	plastic	✓																	
-5	TP C	0.1	29-Oct-13	plastic	✓																	
-6	TP C	0.65	29-Oct-13	plastic	✓																	
-7	TP D	0.1	29-Oct-13	plastic	✓																	
-8	TP D	0.7	29-Oct-13	plastic	✓																	
-9	TP E	0.1	29-Oct-13	plastic	✓																	
-10	TP E	0.8	29-Oct-13	plastic	✓																	
-11	TP F	0.1	29-Oct-13	plastic	✓																	
-12	TP F	0.5	29-Oct-13	plastic	✓																	

DATE: **31/10/13**
 CHECKED BY: **Masa**
 No OF SAMPLES: **12**
 No OF GLASS: **1**
 No OF PLASTIC: **12**



Environmental and Analytical Laboratory

LABORATORY REPORT**Job Number:** 13-7973**Revision:** 00**Date:** 7 November 2013

ADDRESS: **Great Southern Bio Logic**
PO Box 5537
Albany WA 6332

ATTENTION: Jeremy Spencer

DATE RECEIVED: 31/10/2013

YOUR REFERENCE: GSBL126, Lot 11 Nannaup Rd

PURCHASE ORDER:

APPROVALS:

Douglas Todd
Laboratory Manager

REPORT COMMENTS:

Phosphorus Retention Index subcontracted to CSBP, Report Number 262287

METHOD REFERENCES:

Subcontracting See Report Comments section for more information.

**LABORATORY REPORT**

Great Southern Bio Logic

ARL Job No: 13-7973

Revision: 00

Date: 7 November 2013

RESULTS:

Subcontracting Sample No: Sample Description:	LOR	UNITS	13-7973-1 TP A 0.1	13-7973-2 TP A 0.7	13-7973-3 TP B 0.1	13-7973-4 TP B 0.6	13-7973-5 TP C 0.1
Phosphorus Retention Index			6.8	252.9	161.2	82.2	158.0

Subcontracting Sample No: Sample Description:	LOR	UNITS	13-7973-6 TP C 0.65	13-7973-7 TP D 0.1	13-7973-8 TP D 0.7	13-7973-9 TP E 0.1	13-7973-10 TP E 0.8
Phosphorus Retention Index			10.9	125.0	94.8	4.2	846.7

Subcontracting Sample No: Sample Description:	LOR	UNITS	13-7973-11 TP F 0.1	13-7973-12 TP F 0.5
Phosphorus Retention Index			121.8	534.5

Result Definitions

LOR Limit of Reporting

[ND] Not Detected at indicated Limit of Reporting

[NR] Analysis Not Requested

(SS) Surrogate Standard Compound

APPENDIX C – SUBDIVISION CONCEPT PLAN



LEGEND

- Existing Lot Boundaries
- Proposed Lot Boundaries
- DBYD Overhead Power AE
- DBYD Water W
- DBYD Telstra T

SUBDIVISION CONCEPT PLAN

Lot 11 (No.264)
Nanarup Road
KALGAN

Harley Dykstra

PLANNING & SURVEY SOLUTIONS

DRAWN SDP 12/10/2014	CHECKED SD 13/10/2014	DRAWING No 13688-03A.dgn
SCALE AT A3 1:750		
REV A	DESCRIPTION Original Drawing	DATE 12/10/2014

ALL DISTANCES ARE IN METRES

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NOTE:
 This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey.



Area Plan

1:7500



Local Planning Scheme No. 1
Application: P2130445
Proposal: Telecommuniacion Infrastrucutre
Schedule of Submissions for 64 Barrass Road, Little Grove WA 6330

No.	Submission	Officer Comment
1.	<ol style="list-style-type: none"> 1. The proposal is inconsistent with 4.5.2 of ALPS – <i>“Maintain the outstanding visual amenity and public view scapes and iconic elements”</i> 2. If approved the proposal would significantly impact views 3. The tower would be significantly taller and out of character to other infrastructure in the precinct. 4. The application contains a number of errors <ul style="list-style-type: none"> - Existing vegetation will screen the tower - Surrounding streetscape description does not represent the area 5. The proposal will negatively impact property and rental prices. 6. Will approval create precedent for the addition of additional antennae to the tower 7. There are sites within the area with a ground elevation of 70m which would be more suitable. 8. Rejection of NBN towers is not without precedent , primarily in relation to impacts on views 	<ol style="list-style-type: none"> 1. ALPSs is a strategic document, the objectives are passed through into statutory control through Local Planning Scheme No. 1 (LSP1). Concerns regarding the issue are noted. 2. Concerns noted. Views are identified as a factor to be assessed within WA Planning Commission (WAPC) State Planning Policy 5.2. 3. It is acknowledged that there is no other telecommunications infrastructure within the immediate area of Barrass rd 4. The City of Albany contacted the applicant in order to clarify these observations. Firstly, the screening of the tower is primarily referring to screening the base and equipment from street level. In relation to streetscape element, the applicant has advised that the description refers to the much wider area of Frenchman Bay Rd and Little Grove. While the clarification is noted, the City has not used such a wide area to assess amenity and has consequently not used these components e.g. rail in assessing the application.

No.	Submission	Officer Comment
		<p>5. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.</p> <p>6. Additional infrastructure would be subject to a separate process. If it is of a minor nature it would not be subject to a City of Albany planning application. It is however subject to a process of advertising and comment under the <i>Telecommunications (Low impact Facilities) Determination 1997</i>.</p> <p>7. In response to concerns raised the City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. On this basis they advised that they would be proceeding with the subject site. The City does not have the statutory authority to make NBN review other sites. An application cannot be refused on the basis that there may be more suitable sites.</p> <p>8. Noted. The City has reviewed applications determined at other Local Governments.</p>
2.	<p>1. The visual impact will affect the natural and historical heritage of the Torindirrup Coastal reserve</p> <p>2. The coastal reserve needs protecting at all costs</p>	<p>1. Concerns noted. It is acknowledged that the subject site adjoins a National Park. In terms of heritage the City of Albany utilises its MHI to determine any</p>

No.	Submission	Officer Comment
		<p>heritage sites within the area.</p> <p>2. Noted.</p>
3.	<p>1. The tower would detract from the scenic landscape and goes against the already stringent conditions to blend into the hillside.</p> <p>2. Property devaluation</p> <p>3. Health risks associated with living near a telecommunication tower</p>	<p>1. The impact of the proposed tower on the landscape of the area is a matter of assessment.</p> <p>2. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.</p> <p>3. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.</p>
4.	<p>1. The proposal would be more appropriate in an industrial area</p>	<p>1. Given the operational requirements of the proposed infrastructure it would not be possible to locate within an existing industrial area and still services the little grove area.</p>
5.	<p>1. Highly concerned about the proposed site</p>	<p>1. Concerns noted</p>

No.	Submission	Officer Comment
	<p>2. The tower would detract from the scenic landscape and goes against the already stringent conditions to blend into the hillside.</p> <p>3. Health risks associated with living near a telecommunication tower</p>	<p>2. The impact of the proposed tower on the landscape of the area is a matter of assessment under WA Planning Commission (WAPC) State Planning Policy 5.2.</p> <p>3. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.</p>
6.	<p>1. Proposed structure is incompatible with the City’s visual management policy. The structure will be visible from neighbourhood, Frenchmans bay rd and the City.</p> <p>2. The structure is incompatible with the immediately adjacent Torndirrup National park</p> <p>3. The structure is incompatible with the Dept of Water ‘Groundwater Land Use Controls’ which prohibits any commercial activity</p>	<p>1. Concerns noted. WA Planning Commission (WAPC) State Planning Policy 5.2.</p> <p>2. Concerns noted. The amenity and landscape issues of the proposal are discussed within the report and are assessed against State Planning Policy 5.2.</p> <p>3. The proposal does not interfere with groundwater any more than a dwelling. Telecommunications infrastructure is listed as a compatible use under the</p>

No.	Submission	Officer Comment
	<ul style="list-style-type: none"> 4. Property will become devalued an unsellable 5. Did not receive a invitation to attended the NBN Co public forum 6. Numerous comments regarding water quality 7. Numerous comments regarding misuse of the internet service created as a result of the proposal. 	<p>land use controls.</p> <ul style="list-style-type: none"> 4. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application. 5. Noted. The community consultation undertaken by the applicant has no statutory standing in the scope of this report. 6. Water quality is addressed within LPS1 through water protection areas. The Telecommunications infrastructure is listed as a compatible use under the land use controls. Any other groundwater concerns will need to be direct to Department of Water. 7. The misuse of the internet is not a planning consideration and as is not within the scope of assessment.
7.	<ul style="list-style-type: none"> 1. Inadequate public consultation has been undertaken 2. Visual impact is significant and has not been meaningfully addressed by the applicant 3. The tower is not appropriate for the rural setting and inconsistent with the development conditions placed on property owners 4. The tower will detrimentally impact property values 5. The proposal will significantly impact views which were a significant fact when buying/ designing properties. 	<ul style="list-style-type: none"> 1. City of Albany consultation has been undertaken in accordance with LPS1. The area and time of consultation was extended beyond the regular statutory limits in this instance. The community consultation undertaken by the applicant has no statutory standing in the scope of this report. 2. Concerns noted. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2.

No.	Submission	Officer Comment
	<p>6. Proposed Tower location is a Bushfire risk</p> <p>7. Health risks associated with living near a telecommunication tower</p>	<p>3. Concerns noted. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2.</p> <p>4. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.</p> <p>5. Impacts on views are subject to assessment within State Planning Policy 5.2.</p> <p>6. While the area would generally be considered a bushfire risk, the proposal is not classified as vulnerable structure.</p> <p>7. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.</p>
8.	<p>1. There has been little effective community consultation</p> <p>2. The visual impact assessment provided by the proponents is significantly lacking in detail the proposal will have a</p>	<p>1. City of Albany consultation has been undertaken in accordance with LPS1. The area and time of consultation was extended beyond the regular</p>

No.	Submission	Officer Comment
	<p>detrimental impact of the visual amenity of the landscape. Further assessment should be subject to a visual impact assessment – this assessment should be made available to those affected.</p> <ol style="list-style-type: none"> 3. The proposal is inappropriate for the rural lifestyle setting 4. The proponent has been selective in addressing the objectives of the Rural residential Zone 5. The tower is inconsistent with the planning restrictions placed on landowners in the area 6. The application is inaccurate in describing the surrounding landscape and infrastructure of the area e.g. street lights, rail infrastructure. 7. Guidelines for minimising visual impact states that towers should be located where similar infrastructure is available 8. The proposal is inconsistent with the planning scheme and zoning 9. The applicant has promoted the economic benefits and is silent on the social impacts for landowners. 10. The tower will detrimentally impact property values 11. The aerial power supply to the tower are vulnerable to bushfires. 12. Management of the national park should not be compromised by the proposed location of the tower. 13. If the tower proceeds owners will likely plant more screening vegetation and consequently impact bushfire protection considerations within building protection areas. 14. Potential for additional antennae to be added to the proposed 	<p>statutory limits. Concerns from the community regarding the NBN consultation are noted.</p> <ol style="list-style-type: none"> 2. Concerns noted. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2. 3. Concerns noted. 4. Scheme controls relating to the area specifically primarily relate to the establishment of a single dwelling and associated outbuildings. The proposal is subject additional controls under State Planning Policy 5.2. 5. As above. 6. The City of Albany contacted the applicant in order to clarify these observations. Firstly, the screening of the tower is primarily referring to screening the base and equipment from street level. In relation to streetscape element, the applicant has advised that the description refers to the much wider area of Frenchman Bay Rd and Little Grove. While the clarification is noted, the City has not used such a wide area to assess amenity and has consequently not used these components e.g. rail in assessing the application. 7. In this instance there is no exiting infrastructure to facilitate co – location. 8. Concerns noted. Telecommunications infrastructure

No.	Submission	Officer Comment
	<p>tower.</p> <p>15. The EME levels are not placed within the context of electronic equipment.</p> <p>16. Outcome of search of heritage registers is not provided</p> <p>17. Referenced flora and fauna study is not provided</p> <p>18. Alternative locations which will have minimal impact should be investigated.</p>	<p>is classified as 'A' use and is assessed against LPS1 and pertinent statutory documents within the report.</p> <p>9. Concerns noted.</p> <p>10. Property values are not an applicable planning consideration in the assessment of the application.</p> <p>11. Concerns noted. The same obligations for landowners apply vegetation in the vicinity to poles.</p> <p>12. While the proximity to the national Park is acknowledged, there is no additional burden which would be placed upon the management of the park.</p> <p>13. Additional screening would be at least 80m from the dwelling on the lot. Planting can be undertaken in without impacting the building bushfire compliance.</p> <p>14. Concern noted and identified as a risk within report. Additional infrastructure could potential be classified as a low impact addition and not require City of Albany development approval. Notwithstanding this, any addition would be subject to public advertising.</p> <p>15. There is information on the Australian Radiation Protection and Nuclear Safety Agency website for EME levels. A Australian Centre for Radio Frequency Bioeffects Research states that a microwave within a house typical has an output level of 4.4% of the maximum exposure limit.</p> <p>16. Applicant has provided document. City of Albany has access to State, Aboriginal and Municipal heritage</p>

No.	Submission	Officer Comment
		<p>registers and checks application against these databases.</p> <p>17. Applicant has provided document. City has reviewed the database results.</p> <p>18. In response to concerns raised the City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. On this basis they advised that they would be proceeding with the subject site. The City does not have the statutory authority to make NBN review other sites. An application cannot be refused on the basis that there may be more suitable sites.</p>
9.	<ol style="list-style-type: none"> 1. Property devaluation 2. There must be better sites than on the edge of the Torinderrup national Park 3. Not fully aware of health issues 	<ol style="list-style-type: none"> 1. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application. 2. The City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. 3. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the

No.	Submission	Officer Comment
		<p>Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.</p>
10.	<ol style="list-style-type: none"> 1. Not comfortable living in the vicinity of such structures. There is not enough evidence either way to suggest it is safe. 2. The proposal is inconsistent with the character of the area 3. Property devaluation 	<ol style="list-style-type: none"> 1. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level. 2. Concerns noted. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2. 3. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.

No.	Submission	Officer Comment
11.	<ol style="list-style-type: none"> 1. No definitive evidence regarding potential health issues 2. Detrimental impact on property values 3. Quality of the applicants public consultation forum 	<ol style="list-style-type: none"> 1. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level. 2. Concerns noted. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2. 3. Concerns noted.
12.	<ol style="list-style-type: none"> 1. The proposal is unsuitable for the area including the tourist drive of Frenchman Bay rd and the nearby National park 2. Health concerns 3. Question the necessity of such a structure when compromises are made on other services when moving into the area. 4. Property devaluation 	<ol style="list-style-type: none"> 1. Concerns noted 2. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from

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		<p>the site will be 0.028% of the maximum public exposure level.</p> <p>3. Other services mentions are suitably replaced by either water tanks or septic systems. Given the larger lot sizes of the area it is not feasible to connect each dwelling to cable internet.</p> <p>4. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.</p>
13.	<ol style="list-style-type: none"> 1. The proposal represents a visual eyesore which is not compatible with the existing amenity and nearby national park. 2. There are errors in the applicants report regarding the surrounding landscape features e.g. rail infrastructure. 3. The proposal does not comply with the Local Rural Strategy 4. Quality of the applicants public consultation forum 5. Future additions could potentially be approved 6. This tower has been rejected in other areas of Little and Big Grove 	<ol style="list-style-type: none"> 1. Concerns noted. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2. Surrounding amenity is established using WAPC landscape planning manual. The provisions from this document are also within SPP 5.2. 2. In response to concerns raised the City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. On this basis they advised that they would be proceeding with the subject site. The City does not have the statutory authority to make NBN review other sites. An application cannot be refused on the basis that there may be more suitable sites.

No.	Submission	Officer Comment
		<p>3. ALPSs is a strategic document, the objectives are passed through into statutory control through Local Planning Scheme No. 1 (LSP1). Concerns regarding the issue are noted.</p> <p>4. Concerns noted. The City was not part of the applicant's community consultation. This consultation did not form part of the City of Albany assessment.</p>
14.	<p>1. Support the proposal</p>	<p>1. Noted.</p>
15.	<p>1. Object to the proposal</p> <p>2. The proposal should be relocated to an industrial area.</p>	<p>1. Objection noted.</p> <p>2. Given the operational requirements of the proposed infrastructure it would not be possible to locate within an existing industrial area and still services the little grove area.</p>
16.	<p>1. Are there alternative locations being considered</p> <p>2. Has the site been established already – am I wasting my time</p> <p>3. Is NBN Co and Council able to give assurances regarding health affects</p>	<p>1. The City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured.</p> <p>2. No approvals have been issued. The current application is before the City of Albany and is being assessed against the statutory framework.</p> <p>3. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally</p>

No.	Submission	Officer Comment
		<p>established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.</p>
17.	<ol style="list-style-type: none"> 1. Concerns regarding health 2. Property devaluation 	<ol style="list-style-type: none"> 1. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level. 2. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.
18.	<ol style="list-style-type: none"> 1. Oppose the application 	<ol style="list-style-type: none"> 1. Opposition noted.

No.	Submission	Officer Comment
	<ul style="list-style-type: none"> 2. Significant property devaluation 3. The proposal will detrimentally affect the rural secluded nature of the area 4. Incorrect statements within the proposal; <ul style="list-style-type: none"> a. The National Park being identified as an appropriate back drop for the facility. b. Notion that existing vegetation will screen the tower c. Incorrect/ misleading description of existing landscape infrastructure for the area. d. The proposal only mentioned the positive economic impacts, not the negative 	<ul style="list-style-type: none"> 2. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application. 3. Concerns noted. Visual amenity impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2. Surrounding amenity is establish using WAPC landscape planning manual. 4. The City of Albany contacted the applicant in order to clarify these observations. Firstly, the screening of the tower is primarily referring to screening the base and equipment from street level. In relation to streetscape element, the applicant has advised that the description refers to the much wider area of Frenchman Bay Rd and Little Grove. While the clarification is noted, the City has not used such a wide area to assess amenity and has consequently not used these components e.g. rail in assessing the application.
19.	<ul style="list-style-type: none"> 1. Proposal conflicts with the ALPS – specifically 4.5.2 Visual Amenity. 2. The proposal will directly impact views, be out of character and 	<ul style="list-style-type: none"> 1. ALPSs is a strategic document, the objectives are passed through into statutory control through Local Planning Scheme No. 1 (LSP1). Concerns regarding

No.	Submission	Officer Comment
	<p>dominate the landscape</p> <ol style="list-style-type: none"> 3. Ask the City to consider the community submissions 4. Request the NBN to search for an alternative location 5. The proposal will negatively impact property values 6. Incorrect statements within the proposal; <ol style="list-style-type: none"> e. Notion that existing vegetation will screen the tower f. Incorrect/ misleading description of existing landscape infrastructure for the area. 7. Ask the City to Request the applicant to review where tenure could not be secured or where commercial terms could not be reached. 8. Ask the City to request why other sites within Little Grove were not considered 9. Ask the City to request the NBN co policy and rationale for pursuing private tenure 10. What does the City have in place to prevent residents from soliciting the co-location of additional telecommunications infrastructure. 11. Can the City provide a policy which will ensure decommissioning of these towers if they become obsolete. 12. If approved, will the application create a precedent for approval 13. Sites with a ground elevation of up to 70 metres exist within 70m of the proposed tower 14. Rejection of a NBN tower in Australia is not without precedent. 15. Numerous points regarding issues and deficiencies with the consultation undertaken by the applicant prior to submission of 	<p>the issue are noted.</p> <ol style="list-style-type: none"> 2. Visual impact is subject to assessment against the provisions of LPS1, Local Rural Strategy and State Planning Policy 5.2. Surrounding amenity is established using WAPC landscape planning manual. 3. The matters to be considered of LPS1 include community comments received during consultation. 4. The City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. 5. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application. 6. The City of Albany contacted the applicant in order to clarify these observations. Firstly, the screening of the tower is primarily referring to screening the base and equipment from street level. In relation to streetscape element, the applicant has advised that the description refers to the much wider area of Frenchman Bay Rd and Little Grove. While the clarification is noted, the City has not used such a wide area to assess amenity and has consequently not used these components e.g. rail in assessing the application. 7. The City requested the applicant to review sites. The

No.	Submission	Officer Comment
	<p>the application.</p> <p>16. Ask the City to request the lease documentation for the proposal. What is proposed when the lease expires.</p> <p>17. Noise generated from the proposal in the operation phase</p> <p>18. Potential detrimental health issues.</p> <p>19. Ask the City to request NBN co to develop a partnership with community groups who are objecting to NBN sites to enable communities to employ independent contractors to identify alternative sites.</p>	<p>applicant stated they wish to proceed with the selected site. The City of Albany does not have the statutory authority to enforce a review.</p> <p>8. As above.</p> <p>9. The City of Albany has not request these details from the NBN co. There are a number of instances where infrastructure services are located on both public and private land. The tenure does not alter the statutory assessment framework.</p> <p>10. Concern noted and identified as a risk within report. Additional infrastructure could potential be classified as a low impact addition and not require City of Albany development approval. Notwithstanding this, any addition would be subject to public advertising.</p> <p>11. It is expected that if the proposed tower were to be obsolete that it would be removed. The City could potentially apply this as a condition.</p> <p>12. In terms of planning law, specific terms must be addressed in order to justify that precedent be relevant to any future applications. Therefore, in this case, risks of unwanted precedent occurring is minimal.</p> <p>13. As mentioned previously, the city contact NBN requesting sites to be reviewed. NBN advised that they would be proceeding with the selected site.</p> <p>14. Noted. The City has reviewed and researched</p>

No.	Submission	Officer Comment
		<p>proposals of a similar nature.</p> <p>15. Noted. The community consultation undertaken by the applicant has no statutory standing in the scope of this report.</p> <p>16. Lease documentation is not considered to be a planning consideration. The documentation has not been requested.</p> <p>17. The City contacted NBN co in respect to noise from the site. It is advised that a air conditioner operated in the cabinets when required. The operation is cycled and only occurs when necessary. Decibel information has been received. It is advised that the noise is equal to or less a household air conditioning system.</p> <p>18. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.</p> <p>19. As mentioned previously, the City of a Albany contacted NBN and were advised that they wish to proceed with the current site.</p>

No.	Submission	Officer Comment
20.	<ol style="list-style-type: none"> 1. The consultation undertaken the proponent was misrepresentative 2. There are a number of other sites which would allow for a smaller pole 3. The application is misleading when it states that; <ol style="list-style-type: none"> a. that existing vegetation will screen the tower b. Incorrect/ misleading description of existing landscape infrastructure for the area. 4. That the points of the guidelines have not been suitably addressed. 5. There is no certainty that additional antennae will not be added to the infrastructure. 6. The proposal incorrectly states that fire and ground water contamination are not issues 7. Consider the mental health impact that the proposal is having on residents. 	<ol style="list-style-type: none"> 1. Noted. The community consultation undertaken by the applicant has no statutory standing in the scope of this report. 2. The City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. 3. The City of Albany contacted the applicant in order to clarify these observations. Firstly, the screening of the tower is primarily referring to screening the base and equipment from street level. In relation to streetscape element, the applicant has advised that the description refers to the much wider area of Frenchman Bay Rd and Little Grove. While the clarification is noted, the City has not used such a wide area to assess amenity and has consequently not used these components e.g. rail in assessing the application. 4. Concerns noted. In assessing the application, the City of Albany has independently assessed the proposal against and State Planning Policy 5.2. 5. Concern noted and identified as a risk within report. Additional infrastructure could potential be classified

No.	Submission	Officer Comment
		<p>as a low impact addition and not require City of Albany development approval. Notwithstanding this, any addition would be subject to public advertising.</p> <p>6. The proposal does not interfere with groundwater any more than a dwelling. Telecommunications infrastructure is listed as a compatible use under the Department of Water Land Use Controls.</p> <p>7. While the area would generally be considered a bushfire risk, the proposal is not classified as vulnerable structure.</p>



Area Plan

1:8000



Local Planning Scheme No. 1
Application: P2130446
Proposal: Telecommuniacion Infrastrucutre
Schedule of Submissions for 241 Robinson Road, Robinson WA 6330

No.	Submission	Officer Comment
1.	<ol style="list-style-type: none"> 1. The proposal will negatively impact on the existing level of amenity of the area and will be highly visible. 2. Concerns regarding vegetation removal. 3. The proposal has the potential to cause negative health effects. 4. The proposal risks negatively impacting on property values. 	<ol style="list-style-type: none"> 1. Concerns noted. The impact on amenity is specifically assessed within the statutory framework. Amenity and views are identified as a factor to be assessed within WA Planning Commission (WAPC) State Planning Policy 5.2. The WAPC landscape planning manual is used in reference to determining landscape values. 2. There are no additional vegetation controls on the site other than those contained within LPS1. The applicant has obligations under to the Department of Environmental Regulation for a clearing permit if required. The vegetation proposed to be removed is minimal and considered appropriate. 3. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from

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		<p>the site will be 0.028% of the maximum public exposure level.</p> <p>4. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application.</p>
2.	<ol style="list-style-type: none"> 1. Oppose the application 2. Did not receive an invitation to attend the NBN Co public forum, the NBN consultation has not contact us. 3. The proposal will negatively impact visual amenity. 4. Negative impact on property values. 5. Health risks associated with living near a telecommunication tower 	<ol style="list-style-type: none"> 1. Opposition noted. 2. Noted. The community consultation undertaken by the applicant has no statutory standing in the scope of this report. 3. The amenity and landscape issues of the proposal are discussed within the report and are assessed against State Planning Policy 5.2. 4. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application. 5. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public

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		exposure level.
3.	<ol style="list-style-type: none"> 1. Did not receive an invitation to attended the NBN Co public forum, the NBN consultation has not contact us. 2. The proposed tower does not fit with the special rural zoning and will negatively impact visual amenity. 3. Property devaluation 4. Potential of negative health impacts. 	<ol style="list-style-type: none"> 1. Noted. The community consultation undertaken by the applicant has no statutory standing in the scope of this report. 2. Telecommunication infrastructure is an "A" use under LPS1. The impact of the proposed tower on the landscape of the area is a matter of assessment under WA Planning Commission (WAPC) State Planning Policy 5.2. The WAPC landscape planning manual is used in reference to determining landscape values. 3. Concerns noted. Property values are not an applicable planning consideration in the assessment of the application. 4. The City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) enforce the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 0.028% of the maximum public exposure level.

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5.	<ol style="list-style-type: none"> 1. Oppose the application 2. Refer to State Planning policy 5.2 3. The Karri is unique to the area and do not need to be disturbed by bulldozers and vehicles. 4. Robinson rd was once referred to as the old bean track and is one of the first market garden areas. 5. The City is required to have due regard to State Planning Policy. 	<ol style="list-style-type: none"> 1. Concerns noted 2. The proposal is subject to an assessment against the City of Albany statutory framework. This includes assessment against WA Planning Commission (WAPC) State Planning Policy 5.2. 3. It is proposed to minimise all clearing. A condition requirement the submission of a construction management plan has been applied. The applicant has obligations under to the Department of Environmental Regulation for a clearing permit if required. The vegetation proposed to be removed is minimal and considered appropriate. 4. Noted. The City of Albany Local Planning Scheme requires reference to State and Local heritage listings. There are no listings for the site. 5. Noted, the City of Albany adheres to these requirements. In the instance State Planning Policy 5.2 is the applicable policy.
6.	<ol style="list-style-type: none"> 1. Express strong disapproval for the proposed site. 2. Construction would destroy the historical significance of the area. 	<ol style="list-style-type: none"> 1. Opposition noted. 2. Noted. The City of Albany Local Planning Scheme requires reference to State and Local heritage

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	3. Will detrimentally affect the amenity of the area.	listings. There are no listings for the site. 3. The amenity and landscape issues of the proposal are discussed within the report and are assessed against State Planning Policy 5.2. The WAPC landscape planning manual is used in reference to determining landscape values.
7.	1. Support the proposal	Support noted.
8.	<p>1. Did not receive correspondence from the City of Albany on the matter.</p> <p>2. Request for further consultation.</p>	<p>1. Noted. Letters were sent out within a 1km radius from the site. The respondent's property is just outside of this radius. The 1km radius was used to compensate for the larger lot size in the area.</p> <p>2. City of Albany consultation has been undertaken in accordance with LPS1. The area and time of consultation was extended beyond the regular statutory limits in this instance. The community consultation undertaken by the applicant has no statutory standing in the scope of this report.</p> <p>3. of the proposal are discussed within the report and are assessed against State Planning Policy 5.2.</p> <p>4. The proposal does not interfere with groundwater any more than a dwelling. Telecommunications infrastructure is listed as a compatible use under the land use controls.</p> <p>4. Concerns noted. Property values are not an</p>

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		<p>applicable planning consideration in the assessment of the application.</p> <p>5. Noted. The community consultation undertaken by the applicant has no statutory standing in the scope of this report.</p> <p>6. Water quality is addressed within LPS1 through water protection areas. The Telecommunications infrastructure is listed as a compatible use under the land use controls. Any other groundwater concerns will need to be direct to Department of Water.</p> <p>7. The misuse of the internet is not a planning consideration and as is not within the scope of assessment.</p>
9. (Petition 89 signatures)	<ol style="list-style-type: none"> 1. Oppose the application 2. The area is historical important previously Robinson Rd was referred to as the 'old bean track' 3. The area has a high level of visual amenity. The proposal will negatively impact the current level of visual amenity. The proposal will be clearly visible from Mt Melville and Robinson Rd. 4. The lowered visual amenity would impact on the perception of the Robinson rd area would impact on the tourism values of the area. 5. Potential access issues for adjoining properties during 	<ol style="list-style-type: none"> 1. Opposition noted 2. Noted. The City of Albany Local Planning Scheme requires reference to State and Local heritage listings. There are no listings for the site. 3. The proposal is subject to an assessment against the City of Albany statutory framework. This includes assessment against WA Planning Commission (WAPC) State Planning Policy 5.2. The WAPC landscape planning manual is used in reference to determining landscape values. 4. Concerns relating to tourism values are noted.

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	<p>construction.</p> <p>6. The proposal is located in close proximity to residences. The health effects of the proposal cannot be guaranteed. The proposal risks negatively affecting property values within the area.</p> <p>7. The proposal is not consistent with State Planning Policy 5.2.</p> <p>8. There are more suitable locations for the proposal in less significant locations.</p>	<p>5. If supported, a condition requiring a construction management plan has been recommended.</p> <p>6. Concerns regarding property values noted. Property values are not an applicable planning consideration in the assessment of the application.</p> <p>7. Noted. The proposal has been assessed by the City of Albany against State Planning Policy 5.2.</p> <p>8. In response to concerns raised the City of Albany contacted NBN regarding the potential to revisit sites or review alternate locations. NBN advised that this site met technical parameters and that access had been secured. On this basis they advised that they would be proceeding with the subject site.</p>