



## Development Services Attachments Wednesday, 19 October 2016

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# Planning Report

Proposed Fixed Wireless Facility

140 Blue Plains Road

Chittering WA 6084

NBN SITE REFERENCE:

Chittering North [NBN-6PEZ-6TOO-5111]





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## Executive Summary

Proposal	<p>Nbn propose to install a new fixed wireless facility at Chittering North comprised of the following:</p> <ul style="list-style-type: none"> <li>▪ 45m monopole;</li> <li>▪ 3x panel antennas;</li> <li>▪ 1x parabolic dish antenna;</li> <li>▪ 2x outdoor cabinets at ground level;</li> <li>▪ 2.4m high chain-link security compound fencing; and</li> <li>▪ ancillary equipment associated with operation of the facility, including 300mm wide cable tray, cabling, safe access methods, bird proofing, earthing, electrical works and air-conditioning equipment.</li> </ul>	
Purposes	<p>The proposed facility is necessary to provide nbn™ <b>fixed</b> wireless coverage to parts of Chittering and establish links between nbn™ <b>facility at</b> Gingin in order to provide nbn™ fixed wireless coverage to 249 premises in the area.</p>	
Property Details	<p><i>Lot and Plan No:</i> Lot 7 on Diagram 91294  <i>Street Address:</i> 140 Blue Plains Road Chittering  <i>Overall Site Area:</i> 46.0742ha  <i>Property Owner:</i> Wayne &amp; Suzanne Wright</p>	
Town Planning Scheme	<p><i>Shire of Chittering: Town Planning Scheme No. 6</i>  <i>Zone:</i> Agricultural Resource  <i>Other Planning Controls:</i> Nil  <i>Use Definition:</i> Telecommunications Infrastructure</p>	
Applicable Planning Policies	Relevant State & Local Planning Policies	Complies
	State Planning Policy 5.2 (Telecommunications Infrastructure) 2015	Yes
	Guiding Principles for the Location, Siting and Design of Telecommunications Infrastructure	Yes
Application	<p>Use and development of the land for the purposes of construction and operation of a Telecommunications Facility (Fixed Wireless facility)</p>	
Applicant	<p>nbn  c/- Aurecon Australasia Pty Ltd  Level 5, 863 Hay Street  Perth WA 6000  Contact: Emma Storm  Our Ref: NBN-6PEZ-6TOO-5111</p>	



## 1. INTRODUCTION

Nbn has engaged Ericsson as the equipment vendor and project manager to establish the infrastructure required to facilitate the fixed wireless component of the National Broadband Network (nbn™). Ericsson has in turn engaged Aurecon to act on its behalf in relation to the establishment of the required fixed wireless network infrastructure.

The nbn™ is an upgrade to Australia's existing telecommunications network. It is designed to provide Australians with access to fast, affordable and reliable internet services.

Nbn plans to upgrade the existing telecommunications network in the most cost-efficient way using best-fit technology and taking into consideration existing infrastructure.

To support the Fixed Wireless component of this network, nbn requires a fixed wireless transmission site to provide fixed wireless internet coverage to the broader region. The proposed site at Chittering North will serve as a transmission end site with connectivity with the nbn™ facility in Gingin.

An in-depth site selection process was undertaken in the area prior to confirming the site as the preferred location. This preferred location and that for the proposed Chittering North facility was advertised to the local community who were invited to attend a Community Information Session (CIS). A summary of **the CIS and the feedback is provided under the heading 'Site Selection'**. A presentation was also made to the Shire of Chittering regarding the four planned nbn network roll out sites across the Shire.

This process matched potential candidates against four key factors, namely:

- Town planning considerations (such as zoning, surrounding land uses, environmental significance and visual impact);
- The ability of the site to provide acceptable coverage levels to the area;
- Construction feasibility; and
- The ability for nbn to secure a lease agreement with the landowner.

This application seeks planning consent for:

- A 45m monopole;
- radio transmission equipment;
- outdoor cabinets; and
- ancillary works within a fenced compound.



The facility will be located at 140 Blue Plains Road Chittering formally known as Lot 7 on Diagram 91294 (volume 2090; folio 23)

This submission will provide assessment in respect of the relevant planning guidelines, and demonstrates site selection on the basis of:

- The site is designed so as to be appropriately located and sited so as to minimise visual impact on the immediate and surrounding area;
- The site is designed to achieve the required coverage objectives for the area;
- The proposal is designed to operate within the regulatory framework of Commonwealth, State and Local Government; and
- The facility is designed to operate within all current and relevant standards and is regulated by the ACMA (Australian Communications and Media Authority).



## 2. BACKGROUND

### 2.1 nbn and the National Broadband Network

Nbn is the organisation responsible for overseeing the upgrade of Australia's existing telecommunications network and for providing wholesale services to retail service providers. The **nbn™** is designed to provide Australians with access to fast, affordable and reliable internet services.

Nbn plans to upgrade the existing telecommunications network in the most cost-efficient way using best-fit technology and taking into consideration existing infrastructure.

The **nbn™'s fixed wireless network will use cellular technology to transmit** signals to and from a small antenna fixed on the outside of a home or business, which is pointed directly towards the fixed wireless facility.

**Nbn™'s fixed wireless network is designed to** offer service providers with wholesale access speeds of up to 50Mbps for downloads and 20Mbps for uploads.<sup>1</sup>

### 2.2 What is Fixed Wireless and how is it different to Mobile Broadband?

The **nbn™'s fixed wireless network, which uses advanced technology commonly** referred to as LTE or 4G, is engineered to deliver services to a fixed number of premises within each coverage area. This means that the bandwidth per household is designed to be more consistent than mobile wireless, even in peak times of use.

Unlike a mobile wireless service where speeds can be affected by the number of people moving into and out of the area, the speed available in a fixed wireless network is designed to remain relatively steady.

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<sup>1</sup> nbn is designing the **nbn™** to provide these speeds to our wholesale customers, telephone and internet service providers. End user experience including the speeds actually achieved over the **nbn™** depends on some factors outside nbn's **control like equipment quality, software, broadband plans and how the end user's service provider designs its network.**



## 2.3 The Fixed Wireless Network – Interdependencies

Although fixed wireless facilities are submitted to the Shire as standalone developments from a planning perspective, they are highly interdependent. Each fixed wireless facility is connected to another to form a chain of facilities that link back to the **fibre network**. **This is called the 'transmission network'.**

The transmission network requires line of sight from facility to facility until it reaches the fibre network. The fixed wireless network will remain unconnected without the transmission network and a break in this chain can have flow on effects to multiple communities.

The proposed Fixed Wireless facility at Chittering North is a transmission end site (refer to Figure 1). A terminal site is proposed to provide fixed wireless internet services to 249 premises in the local area.



The character of the Fixed Wireless network is visually demonstrated through Figure 1 below.

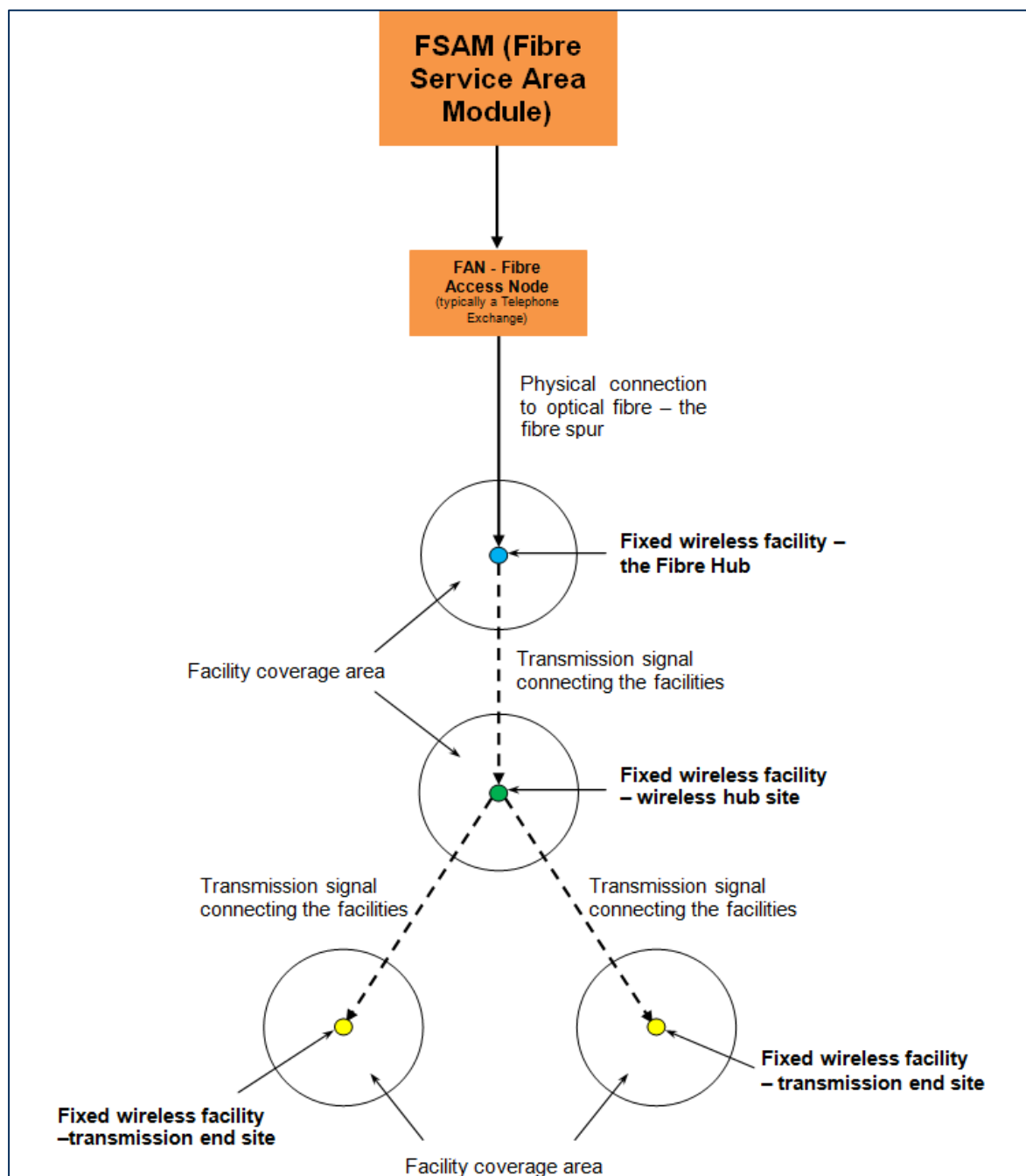


Figure 1 – The fixed wireless network



### 3. SITE SELECTION

Planning for a new fixed wireless broadband facility is a complex process. Nbn undertakes a rigorous multi-stage scoping process as outlined below.

It is noted that subsequent to selecting the preferred candidate site and confirming the ability to secure tenure a Community Information Session (CIS) was held to inform local residents of this proposal and that for Chittering North prior to submitting this Development Application. The CIS was held at the Immaculate Heart College Hall on 9 June 2016 between 3pm and 6pm. Approximately 25 people attended (excluding school staff who were also briefed) with 14 people formally registering their names on an attendance sheet. Feedback forms were made available and can be provided upon request.

In summary, two (2) feedback forms were completed and returned specific to the Chittering North facility. Both submissions were unsure in regard to their support for the proposal. The general tone of the submissions reflected the current unreliable service and inadequate speeds available in the area.

#### 3.1 Identification of areas requiring Fixed Wireless coverage

Nbn™'s Fixed Wireless locations are determined by a number of factors including the availability of both the nbn™ Fibre transit network and the availability of Point of Interconnect (POI) facilities to allow for the installation of nbn™ fibre equipment. Nbn uses a number of methods to identify those parts of Australia that require Fixed Wireless coverage. When an area is identified as requiring Fixed Wireless coverage, investigations are undertaken to determine the measures required to provide this coverage.

Nbn has identified a requirement to provide a Fixed Wireless facility at 140 Blue Plains Road Chittering. The site is designed to link this transmission end site with the nbn™ location at Gingin.

#### 3.2 Site Selection Parameters

Nbn generally identifies an area where the requirement for a Fixed Wireless facility would be highest, a 'search area.' A preliminary investigation of the area is then undertaken, in conjunction with planning and property consultants, radiofrequency engineers and designers in order to identify possible locations to establish a facility.





Generally speaking, new sites must be located within, or immediately adjacent to, the identified search area in order to be technically feasible. However, while the operational and geographical aspects of deploying new facilities are primary factors, there are also many other issues that influence network design, which have to be resolved in parallel.

Nbn has applied the Precautionary Approach in the selection and design of the proposed site in accordance with Sections 4.1 and 4.2 of the *Communications Alliance Industry Code C564: 2011 for Mobile Phone Base Station Deployment*.

In selecting this site, nbn has used industry best practice to assess potential candidate sites, taking into account technical and non-technical criteria including:

- service objectives;
- topographical constraints affecting network line of site;
- potential co-locate at an existing telecommunications facility or building structure;
- visual impact on the surrounding area;
- the need to obtain relevant planning approvals;
- the proximity to community-sensitive locations;
- the proximity to areas of environmental or heritage significance;
- the availability of secure tenure;
- the availability of public utilities, such as power;
- construction issues (including structural and loading feasibility and access for maintenance purposes);
- occupational health and safety; and
- other cost factors.

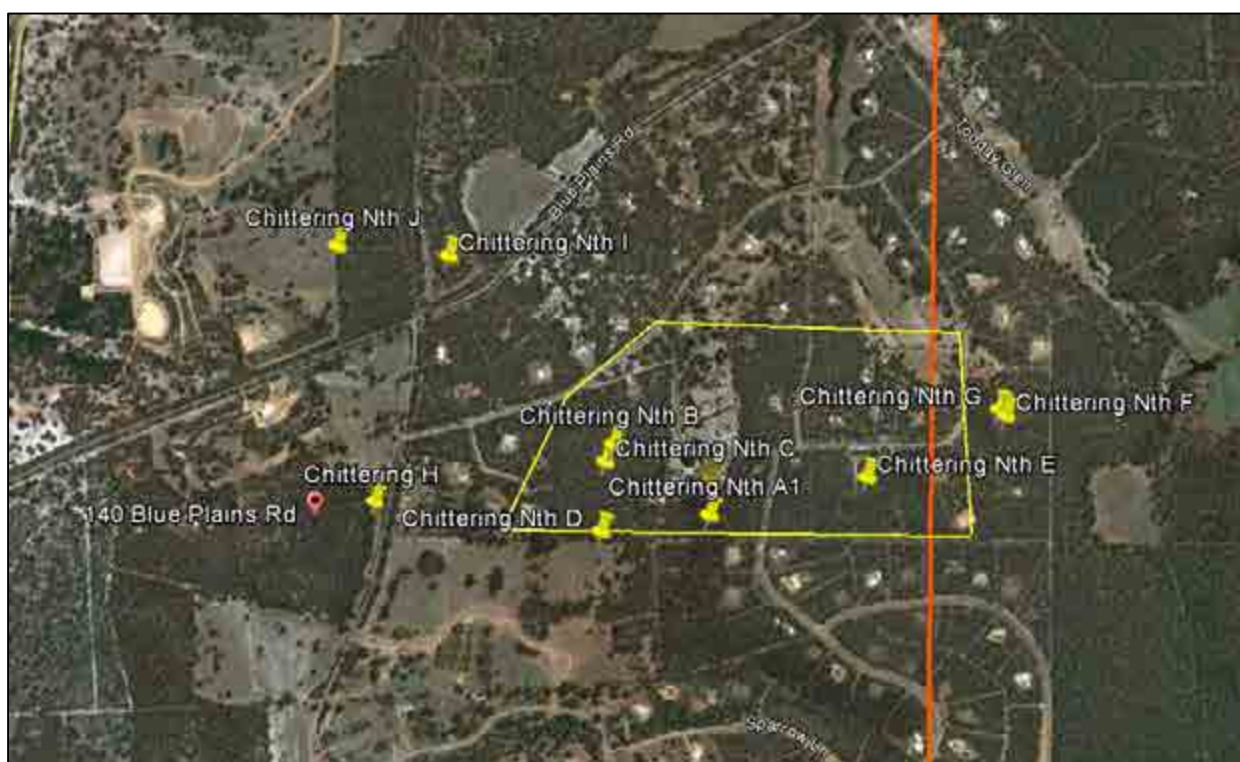
The number, type and height of facilities required to complete the Fixed Wireless network are largely determined by the above operational, geographical and other factors discussed that influence final network design. These compounding factors often severely restrict the available search area within which a facility can be established to provide Fixed Wireless internet services to a local community.

### 3.3 Candidate Sites

Following the identification of the search area, ten (10) initial candidate sites were identified during a desktop assessment process and upon undertaking a site visit. Each candidate was assessed based on the ability to meet the coverage objectives and site considerations detailed above. Figure 2 shows the location of the ten candidate sites identified.



Nbn endeavours to avoid locating search areas in close proximity to residential localities and potentially sensitive land uses, where practicable. Candidate H provides separation from residential land uses, as well as areas of historical or conservation value. The subject land is located in an agricultural resource zone which (in addition to industrial zones) is the preferred land use classification for telecommunications infrastructure to be sited in accordance with State Policy. As such, nbn considers Candidate H the best option as it provides an appropriate location for a facility given the separation from residential and other sensitive land uses, and the ability of vegetation and topography to screen ground level infrastructure.



**Figure 2 – nbn initial candidate sites (Source: Google Earth)**

A summary of the three short-listed candidates deemed to be potentially viable options is set out below.

No	Address and Lot Number	Facility Type	Description
E	Lot 34 Patersonia Road, Chittering 6084	New 50m lattice tower	Whilst land tenure was able to be obtained and the location met service objectives, the site was ruled out on planning grounds given Rural Residential zoning



			whereas the alternative sites have an Agricultural Resource zoning.
H	140 Blue Plains Road, Chittering 6084	New 45m monopole	Proposed candidate deemed to best satisfy the selection criteria across the disciplines responsible for radio frequency (RF) and transmission (TX) design, property services, town planning, and design and construction feasibility.
I	165 Blue Plains Road, Chittering 6084	New 50m lattice tower	Whilst land tenure was able to be obtained and the location met service objectives, the site was ruled out on planning grounds.



## 4. SUBJECT SITE AND SURROUNDS

### 4.1 Site Description

The telecommunications facility is to be located at 140 Blue Plains Road Chittering (refer Figure 3). The land is formally described as Lot 7 on Deposited Plan 91294. A copy of the Certificate of Title has been attached for information purposes (Appendix A – Copy of Title).

The subject property is located approximately 1km to the east of Great Northern Highway, 18.5km north of Bullsbrook and is bound by Blue Plains Road to the north and Maddern South Road to the east. The site is irregular in shape and has a total area of 46.0742 hectares. Access to the property is granted via a gravel access track off Maddern South Road.



**Figure 3 – Local Context subject site (source Google Earth)**

The subject property features a shed and storage facilities. The lot can be **broadly classified as 'rural'** but is believed to be used by the landowner for storage associated with an earth moving business. The existing facilities on site are accessed via Blue Plains Road. The property is sparsely vegetated in the north eastern corner, with more dense vegetation towards the south of the property.



## 4.2 Surrounding Area

The surrounding area consists predominantly of rural land with low intensity agricultural uses. The built form and typical land uses on adjoining properties and surrounding areas are predominantly single detached dwellings and agricultural facilities on rural lots. Separation between the proposed development location on the subject property and the closest residential dwelling on an adjoining property is approximately 220m to the east. No community sensitive sites have been identified within a 500m radius of the proposed development location on the subject property.

Where possible, nbn endeavours to co-locate with existing telecommunications facilities. In this instance, co-location could not be achieved as there are no telecommunications sites within the area.



**Figure 4 – Local context looking south along Maddern South Road**





**Figure 5 – Local context looking north along Maddern South Road**



## 5. THE PROPOSAL

### 5.1 Facility and Equipment Details

#### 5.1.1 Equipment to be installed

The facility comprises a 45m monopole and ancillary components including two outdoor cabinets and a distribution board enclosed within a secure compound being 80m<sup>2</sup> in area.

The compound will be located approximately 77m setback from Maddern South Road (refer to Figure 5) with the nearest residential property located 220m to the east. The nearest property is approximately 100m to the east with frontage to Maddern South Road. Vegetation removal is limited to one dead tree and several grass trees along the vehicular access track. The proposed location of the facility has been chosen on the basis that the land is already cleared, but within a densely vegetated portion of the site to provide additional screening.



**Figure 6 – Proposed location of nbn facility**



The proposed monopole will feature a circular headframe at the top containing three (3) panel antennas measuring 750mm(H) x 300mm(W) x 115mm(D) and six (6) remote radio units measuring 381mm(H) x 291mm(W) x 115mm(D). One (1) parabolic dish antennas will also be located on the tower at 37m. This dish providing a link to the Gingin facility will be 1200mm in diameter. Please refer to Appendix B – Proposed Plans for further details.

#### 5.1.2 Landscaping

The nbn has not proposed additional landscaping given the facility will be substantively screened from public view by existing vegetation and the topography of the area.

#### 5.1.3 Access and Parking Details

The nbn™ network compound will be accessed via an existing fire break track from Maddern South Road. The existing track is proposed to be upgraded as part of this proposal. The crossover provides adequate sightlines for vehicles entering or exiting the facility in forward gear. It is planned to provide independent 24 hour access to the proposed facility.

Nbn considers the site access to be appropriate given the nbn™ network facility will not be a significant generator of traffic. During the construction phase, a truck will be used to deliver the equipment and a crane will be utilised to lift most of the equipment into place. Any traffic impacts associated with construction will be of a short-term duration and are not anticipated to adversely impact on the surrounding road network. In the unlikely event that road closure will be required, nbn will apply to the relevant authorities for permission.

A total construction period of approximately ten weeks (including civil works and network integration and equipment commissioning) is anticipated. Construction activities will involve four basic stages:

- Stage 1 (Week 1) – Site preparation works, including field testing, excavation and construction of foundations;
- Stage 2 (Weeks 2, 3 and 4) – Construction of the monopole;
- Stage 3 (Weeks 5 and 6) – Construction of the equipment cabinets and fences;
- Stage 4 (Weeks 7 – 10) – Installation of antennas and radio equipment, as well as equipment testing.

Once operational, the facility will function on a continuously unstaffed basis and will typically only require maintenance works three times a year.





#### 5.1.4 Utility Service Details

The facility will be powered by the existing underground power route along Maddern South Road with an upgrade required from the street to the proposed **nbn™** power distribution board adjacent to the cabinets.

#### 5.1.5 Construction and Noise

Noise and vibration emissions associated with the proposed facility are expected to be limited to the construction phase outlined above. Noise generated during the construction phase is anticipated to be of short duration and accord with the standards outlined in the Department of Environment Regulation (DER) *Environmental Protection (Noise) Regulations 1997*. Construction works are planned only to occur between the hours of 7.00am and 6.00pm.

There is expected to be some low level noise from the ongoing operation of air conditioning equipment associated with the equipment cabinets, once installed. Noise emanating from the air conditioning equipment is expected to be at a comparable level to a domestic air conditioning installation, and should generally accord with the background noise levels prescribed by relevant guidelines.

### 5.2 Site Selection

The reasons for selecting this site are summarised as follows:

- The proposed site has been particularly targeted to provide the optimal required quality of service as required by nbn for the Chittering area;
- The proposed facility is located in a rural area, sited on cleared land;
- The surrounding landscape includes a number of agricultural buildings and structures, as well as mature trees, which will minimise visual impact;
- The impact on the physical environment is negligible;
- The site provides sufficient spatial separation from sensitive land uses with the nearest dwelling not in the same ownership located approximately 220m from the proposed site; and
- The construction and land tenure costs are acceptable in the context of the locality.



## 6. CURRENT PLANNING CONTROLS

### 6.1 Commonwealth Legislation – The Telecommunications Act

Schedule 3 of the *Telecommunications Act 1997* empowers carriers to install low-impact facilities without participating in the planning approval process. The *Telecommunications (Low Impact Facilities) Determination 1997* defines which facilities are low-impact facilities.

The proposed facility is not low-impact under the definitions contained in the Commonwealth legislation. Development approval is therefore required for the proposed facility.

### 6.2 State Legislation

The revised State Planning Policy 5.2, prepared under Part Three of the *Planning and Development Act 2005*, was released in September 2015. The State Policy applies to all telecommunications infrastructure except that exempted by the *Telecommunications (Low Impact Facilities) Determination 1997*. The objectives of the policy are to:

- Facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs;
- Manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure;
- Ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons; and
- Promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure.

The State Policy provides directions that telecommunications infrastructure should not be prohibited in any zone in the zoning table and that, subject to guidance within a planning scheme, be designated as a permitted use in some zones. Furthermore, the State Policy acknowledges that telecommunications carriers are required to comply with the Australian Radiation and Nuclear Protection Safety Agency (ARPANSA) Electromagnetic Radiation - Human Exposure Standard such that buffer zones and/or setback distances are not to be included in planning schemes or local planning policies. The **nbn™** is now also referenced in the State Policy.

Further to reiterating recent State Administrative Tribunal rulings that health and safety matters are not a planning consideration, the State Policy defines policy measures for local government to consider when determining



development applications for telecommunications infrastructure. A response to the specific policy measures is provided below.

Policy Measure 1: Telecommunications infrastructure should be sited and designed to minimise visual impact	
<p>The proposal involves the erection of a new facility incorporating a 45m monopole and associated ground level equipment. The height and design of the proposed tower is considered to be the minimum required to achieve reasonable transmission objectives. Nbn considers that the proposed new facility will have minimal visual impact on the existing landscape setting as seen by local residents and people passing through the area.</p>	
Specific Policy Measures	Comment
a) Telecommunications Infrastructure should be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites.	The site is located in a rural area, 1km to the east of Great Northern Highway. The specific location within the property is setback approximately 77m from Maddern South Road and over 500m to Blue Plains Road. The facility has been located with the intention of being as least visibly prominent as possible on the subject site.
b) Telecommunications Infrastructure should be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or panorama, whether viewed from public or private land.	The facility is designed so as not to compromise any significant views or places of significance or local landmarks. Additionally, the subject site is located a long distance from existing residential development and community sensitive land uses.
c) Telecommunications Infrastructure should not be located where environmental, cultural heritage, social and visual landscape values may be compromised.	The construction area and overall compound area of the facility is designed to have minimal disturbance to the environmental characteristics of the site. The installation of the proposed facility can be undertaken at any time and is not anticipated to affect the use of the site or the surrounding area due to the accessibility of the site.
d) Telecommunications Infrastructure should display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape.	To minimise the visual impact of the facility nbn have proposed the use of a monopole and selected a site that is located away from residential areas and other sensitive land uses. The proposed monopole is a structure that has a small profile and is considered the



	<p>least visually intrusive design option for a new base station.</p> <p>Furthermore, the monopole will remain unpainted (galvanised steel), which over time has been demonstrated to most successfully blend with the uniform colours <b>of the site's rural setting</b>.</p> <p>No landscaping is proposed due to significant setbacks to surrounding roads and dwellings.</p>
<p><b>Policy Measure 2:</b> Telecommunications Facilities should be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community.</p>	
<p>Nbn through its strategic planning processes has identified this site as having the potential to provide the optimal required quality of service for the Chittering area.</p>	
<p><b>Policy Measure 3:</b> Telecommunications cables should be co-located whenever possible.</p>	
Specific Policy Measures	Comment
a) Cables and lines should be located within an existing underground conduit or duct.	The connection to power is subject to Western Power recommendations.
b) Overhead lines and towers should be co-located with existing infrastructure and/or within existing infrastructure corridors and/or mounted on existing or proposed buildings.	There are no structures or buildings of sufficient height within the surrounding area that could facilitate <b>nbn™</b> infrastructure.

With respect to the above policy measures this proposal through its siting, design and location has addressed the provisions as far as practical.

#### 6.2.1 Guiding Principles for the Location, Siting and Design of Telecommunications Infrastructure

The Guiding Principles for the Location, Siting and Design of Telecommunications Infrastructure (Guiding Principles) is published by the Western Australian Planning Commission (WAPC) to underpin State Planning Policy 5.2. The Guiding Principles philosophy is also reiterated in Part Three of *Visual Landscape Planning in Western Australia – a manual for evaluation, assessment, siting and design*



which was also prepared by the WAPC. The Guiding Principles were taken into consideration when selecting the site and selecting the structure.

## 6.3 Local Legislation

### 6.3.1 Shire of Chittering Town Planning Scheme No. 6

General objectives of the Shire of Chittering Town Planning Scheme No.6 include to:

- *To provide for essential infrastructure consistent with and as needed to support the other aims of the Scheme.*

The availability of wireless high speed internet enables rural living type areas to be serviced for which a cable service is not economically feasible. Services such as the transfer of medical images, marketing and research activities are all able to be performed more efficiently so as to allow more equitable competition with metropolitan businesses. These services also have the potential to allow people to stay in their homes longer by providing improved access to medical professionals, or medical monitoring services.<sup>2</sup> The introduction of the **nbn™** within the community will allow for access to information and services which have the potential to provide a richer and more diverse experience for the end user.



Figure 7 – Zoning map (Shire of Chittering Town Planning Scheme No.6)

<sup>2</sup> End user experience including the speeds actually achieved over the **nbn™** depends on some factors outside nbn's control like the end user's equipment quality, software, broadband plans and how the end user's service provider designs its network.



Nbn considers that the proposal is therefore consistent with the objectives of the Shire of Chittering Town Planning Scheme No.6 for the provision of services and infrastructure to meet the demands of the local residents, businesses and visitors to the town.

The site is located within the Agricultural Resource zone (refer to Figure 7). The proposed development is not located in a Special Control Area, nor will it impact on a place of heritage value.

**Telecommunications infrastructure is an 'A' use in accordance with the Zoning Table.** Council may, at its discretion, permit the use in the zone after giving special notice in accordance with clause 9.4 of the scheme.

Nbn considers that the proposed facility is consistent with the objectives and development requirements of the zone for the following reasons:

- The local rural character of the zone is maintained as far as practical;
- The viability of agricultural activities, other rural pursuits and secondary uses will not be compromised by the proposed development;
- The environmental qualities of the landscape, vegetation, soils and water bodies will not be damaged; and
- The proposal does not seek to introduce a sensitive land use which would otherwise inhibit the operation and development of existing, future and potential rural land uses.

#### 6.3.2 Structure Plans

The subject site is not affected by a Structure Plan.



## 7. OTHER ENVIRONMENTAL CONSTRAINTS AND OPPORTUNITIES

### 7.1 Visual Impact

The siting of the proposed monopole on the subject property is considered appropriate. Critical to the site selection and decision making process was the potential impact of the structure in the visual landscape. The structure in the proposed location will not obscure an important view or vista. It has been strategically located amongst mature vegetation away from existing dwellings to minimise impact.

The nearest dwelling not in the same ownership is located approximately 220m to the east. No additional landscaping is proposed as the existing vegetation is considered sufficient to screen the base of the facility from the dwelling and the surrounding area.

Note that the proposed 45m monopole is considered to be the smallest structure capable of meeting coverage and operational objectives. A monopole is a structure that has a small profile and is considered the least visually intrusive design option for a new base station. Furthermore, the pole will remain unpainted (galvanised steel), which over time has been demonstrated to most successfully blend with lighter backgrounds such as the sky.

Whilst the structure may be visible from some aspects, based on the siting the proposed development will not result in adverse impacts on visual amenity in the local area.

### 7.2 Heritage

In order to identify natural or cultural significance associated with the site, a desktop search of both the **State Heritage Office's 'Inherit' heritage register** and the Department of Aboriginal Affairs Aboriginal Heritage Inquiry System was undertaken as part of an environmental constraints mapping process. The local planning scheme was also reviewed. The investigation did not identify any registered cultural, historical or environmental heritage significance in the immediate vicinity of the proposed site.



### 7.3 Bushfire

The proposed development is classified under the Building Code of Australia as Class 10b (non-habitable structures). As such firebreaks are not required, nor will the development result in any additional fire load or risk to occupants.

We have been further advised by the Western Australian Planning Commission that it is not the intent of State Planning Policy 3.7 Planning in Bushfire Prone Areas for Class 10 (Telecommunications Infrastructure) to require a BAL Bushfire Hazard Assessment in fire prone areas. We are currently seeking a written statement to this effect that we intend to submit with future nbn Development Applications in such circumstances.

### 7.4 Electrical Interference and Grounding of the Facility

The **nbn™** fixed wireless network is licensed by the Australian Communications and Media Authority (ACMA) for the exclusive use of the OFDMA9800 frequency band. As nbn is the exclusive licensee of this sub-band, emissions from **nbn™** equipment within the frequency band should not cause interference.

Filters will also help to ensure that each facility meets the ACMA specifications for emission of spurious signals outside the **nbn™** frequency allocations. Nbn intends to promptly investigate any interference issues that are reported.

The facility is also designed to be grounded to the relevant Australian Standards – that is, the facility will be **'earthed'**.

### 7.5 Erosion, Sedimentation Control and Waste Management

There will not be any notable change to the current flow of surface water following a rain event as a result of the development. As such there will be no concentrated discharge of stormwater otherwise requiring erosion control at the point of discharge (outlet). **In addition, contractors must comply with the 'nbn Construction Specification'** that requires contractors to undertake the necessary erosion and sediment control measures in order to protect the surrounding environment during the construction process. On completion of the works, the site will be restored and reinstated to an appropriate standard. No waste which requires collection or disposal will be generated through the operation of the facility.





## 7.6 Flora and Fauna

In order to ascertain any conservation significance associated with the site, a desktop search was undertaken of the Department of Environment Regulation (DER) Environmentally Sensitive Areas mapping system. Our environmental constraints mapping process also identifies the location of Bush Forever sites. Additionally, a review of the local planning policy framework was undertaken to ensure compliance with any applicable structure plan or building envelope.

The site is not located within an 'Environmentally Sensitive Area' or a Bush Forever reservation. A clearing permit from the Department of Environment Regulation is not required, or a referral to the Department of Planning Bush Forever Office required.

A site assessment was undertaken when negotiating the compound location with the landowner and assessing access arrangements to ensure as far as practical that vegetation and soil disturbance was minimised. It is additionally noted that the monopole does not support any moving parts that have the potential to impact bird life.

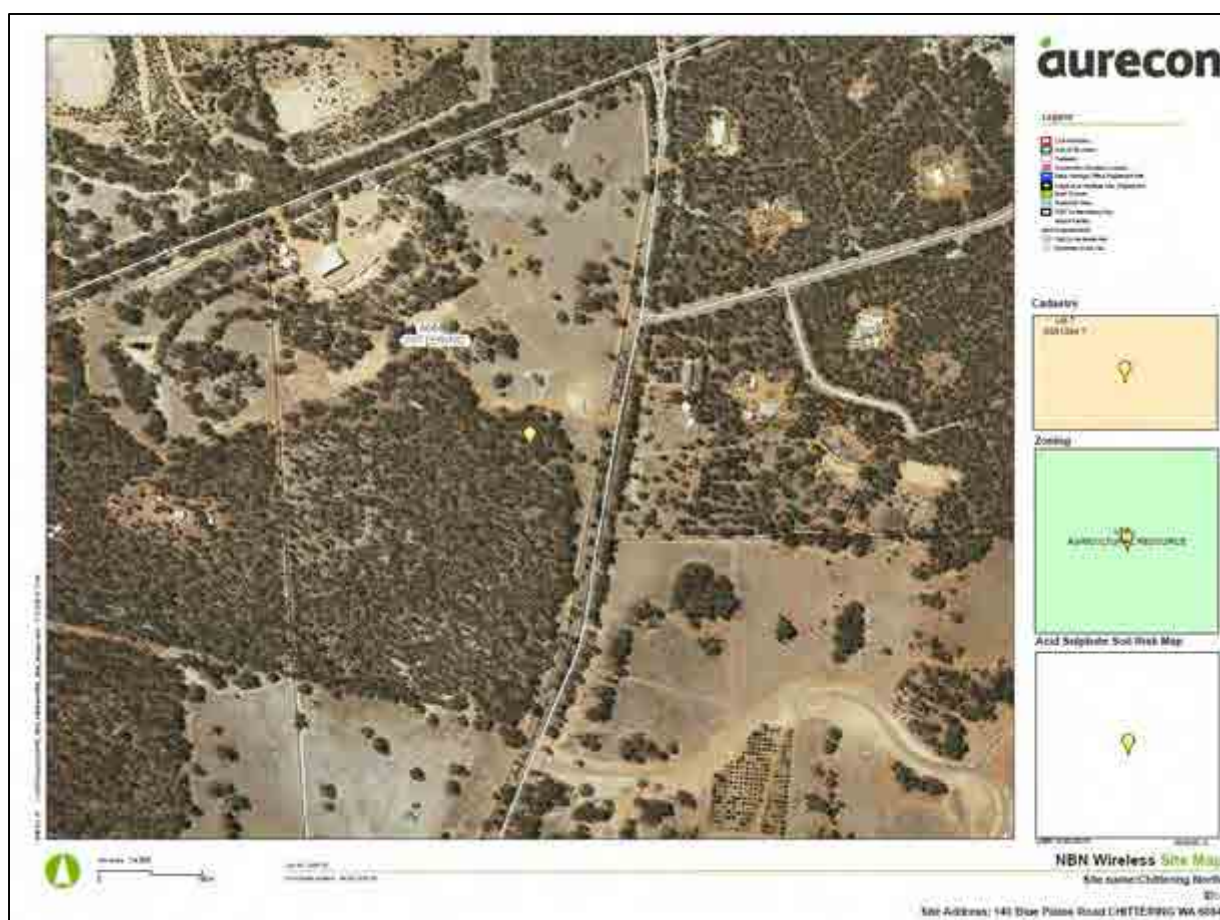


Figure 8 – Site environmental constraints map



## Social and Economic Impacts

Access to fast internet is an essential service in modern society. Initially, small to medium business customers accounted for a significant part of the demand for broadband technology, but internet services have now been embraced by the general public. Usage of internet services continues to widen as new technologies become progressively more affordable and accessible for the wider community.

The proposed development should assist in providing significantly enhanced fixed wireless internet coverage to the locality of Chittering. This is expected to be of particular benefit for residential dwellings in the area.

The new **nbn™** network is designed to provide the community with access to fast and reliable internet services. A reliable internet service is important to help promote the economic growth of communities, and the facility is anticipated to have significant social and economic benefits for the local community.

## 7.7 Aviation Safety

In accordance with the 'Reporting of Tall Structures' the 45m structure will be registered as a Tall Structure with the RAAF in accordance with CAAP 92-1 at the time of Building Approval.

## 7.8 Public Safety

### 7.8.1 Radiofrequency Emissions

In relation to public safety and specifically Electromagnetic Emissions (EME) and public health, **nbn™** network operates within the operational standards set by the Australian Communication and Media Authority (ACMA) and Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). ARPANSA is a Federal Government agency incorporated under the Health and Ageing portfolio and is charged with the responsibility for protecting the health and safety of both people and the environment from the harmful effects of radiation (ionising and non-ionising).

All **nbn™** network installations are designed and certified by qualified professionals in accordance with all relevant Australian Standards. This helps to ensure that the **nbn™** facility does not result in any increase in the level of risk to the public. It is for this reason that the new Telecommunications Infrastructure State Planning Policy makes it clear that public health is not a matter for local government to consider when determining development applications.



This facility is to be operated in compliance with the mandatory standard for human exposure to EME – currently the Radio communications (Electromagnetic Radiation Human Exposure) Standard 2003. The EME Report associated with this site is attached in Appendix C – EME Report. The report shows that the maximum predicted EME will equate to 0.073% of the maximum exposure limit (where 100% of the limit is still considered to be safe).

Moreover, all **nbn™** network equipment has the following features, all of which help to minimise the amounts of energy used and emitted:

- Dynamic/Adaptive Power Control is a network feature that automatically adjusts the power and hence minimises EME from the facility;
- **Varying the facility's transmit power to the minimal required level**, minimising EME from the network; and
- Discontinuous transmission, a feature that reduces EME emissions by automatically switching the transmitter off when no data is being sent.

#### 7.8.2 Public Access

The proposed facility will have restrictions aimed at preventing public access, including a 2.4m secured compound fence with a locked gate and warning signs placed around the facility.

### 7.9 The Public Interest and the Benefits of Telecommunications

The proposed **nbn™** facility is expected to have significant benefit for residents in the Chittering area. Nbn believes that the public interest would be served by approval of the proposal, given benefits for enhanced internet coverage in the area. The facility is expected to have benefits for local residents and businesses within the district.

There are numerous other benefits of telecommunications connectivity, as follows:<sup>3</sup>

- There are many potential educational benefits justifying the implementation of the **nbn™**. Curriculum and data sharing, increased availability and accessibility of research materials, and virtual classroom environments are good examples. Such elements are particularly beneficial within a tertiary education context.

---

<sup>3</sup> End user experience including the speeds actually achieved over the **nbn™** depends on some factors outside **nbn™**'s control like **the end user's** equipment quality, software, broadband plans and how **the end user's** service providers designs its network.



- Businesses can, through internet usage, increase efficiency through time, resource and monetary savings. Improved internet services effectively remove physical distance and travel time as a barrier to business.
- Improvements to internet services may also be of benefit for local employees, by enabling telecommuting and home business. The telecommuting trend is heavily reliant on access to fast internet services, and is anticipated to continually increase in popularity.

The public benefits of access to fast internet have been widely acknowledged for many years. Reliable internet access is now more than ever an integral component of daily life, so much so that its absence is considered a social disadvantage.



## 8. CONCLUSION

Nbn considers that the proposed facility, comprising a 45m monopole with circular headframe and ground level infrastructure has been proposed in the least impactful location whilst ensuring adequate coverage is achieved.

The facility has been strategically sited and designed to minimise visibility within the surrounding environment as much as practicable. In this regard nbn considers that the proposal satisfies the requirements of the State Planning Policy and the accompanying *Guidelines for the Location, Siting and Design of Telecommunications*.

Nbn considers that the proposal is also consistent with the stated objectives and aims of the Shire of Chittering Town Planning Scheme and should be supported.



## APPENDIX A – COPY OF TITLE

WESTERN



AUSTRALIA

REGISTER NUMBER <b>7/D91294</b>	
DUPLICATE EDITION <b>1</b>	DATE DUPLICATE ISSUED <b>22/9/2003</b>

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

VOLUME  
**2090**FOLIO  
**23**

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 7 ON DIAGRAM 91294

## **REGISTERED PROPRIETOR:** (FIRST SCHEDULE)

WAYNE COLIN WRIGHT  
SUZANNE JULIE WRIGHT  
BOTH OF POST OFFICE BOX 296, BULLSBROOK  
AS JOINT TENANTS

(T I586863 ) REGISTERED 11 AUGUST 2003

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

- EXCEPT AND RESERVING METALS, MINERALS, GEMS AND MINERAL OIL SPECIFIED IN TRANSFER 16798/1957.

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: 2090-23 (7/D91294).  
PREVIOUS TITLE: 2049-32.  
PROPERTY STREET ADDRESS: 140 BLUE PLAINS RD, CHITTERING.  
LOCAL GOVERNMENT AREA: SHIRE OF CHITTERING.



## APPENDIX B – PROPOSED PLANS



DATE OF ISSUE		22.03.16		01.04.16					
DRAWING PACKAGE VERSION		1	2						
GENERAL									
6T00-51-11-CHIE-T1	COVER SHEET	01	01						
6T00-51-11-CHIE-C1	SITE SPECIFIC NOTES	01	01						
6T00-51-11-CHIE-C2	OVERALL SITE PLAN	01	01						
6T00-51-11-CHIE-C3	SITE SETOUT PLAN	01	01						
6T00-51-11-CHIE-C4	SITE ELEVATION AND DETAILS	01	01						
ELECTRICAL									
RF AND TX CONFIGURATIONS									
6T00-51-11-CHIE-A1	NBN ANTENNA CONFIGURATION & SETOUT PLAN	01	01						
STRUCTURAL									
CIVIL									
MONOPOLE / LATTICE TOWER DOCUMENTATION									
LEASE / LICENCE									
6T00-51-11-CHIE-C5	LEASE PLAN	-	01						
DISTRIBUTION									
SAED	CHRIS BRAYTON	1	1						
ERICSSON	CARLY FERGUSON	1	1						

Item 10.1.1

SITE CODE: 6T00-51-11-CHIE  
CHITTERING NORTH  
140 BLUE PLAINS ROAD  
CHITTERING  
6084  
RFNSA No: 6084017



PROJECT SUMMARY  
PROPOSED NBN 4.5m MONOPOLE WITH HEADFRAME  
PROPOSED NBN OUTDOOR CABINETS ON CONCRETE SLAB ON GROUND



ERICSSON

PRELIMINARY

NATIONAL BROADBAND NETWORK  
SITE No: 6T00-51-11-CHIE  
CHITTERING NORTH  
140 BLUE PLAINS ROAD  
CHITTERING  
6084

02 0104.16 LEASE PLAN ADDED  
01 2203.16 PRELIMINARY ISSUE  
Rev Date Revision Details



DESIGNER: LJM  
CHECKED: RC  
APPROVED: CB  
Drawing Title:  
COVER SHEET

Drawing No. 6T00-51-11-CHIE-T1  
Revision 02

SITE INFORMATION:

1. SITE ADDRESS  
LOT 7, 140 BLUE PLAINS ROAD, CHITTERING 6084

2. GENERAL  
THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT NBN CONSTRUCTION STANDARDS, CURRENT AUSTRALIAN STANDARDS AND SPECIFICATIONS.

3. SITE ACCESS  
FROM PERTH TRAVEL NORTH APPROX 28km ALONG MITCHELL FREEWAY AND TAKE THE RIGHT EXIT AT BURNS BEACH ROAD. PROCEED EAST ALONG BURNS BEACH ROAD AND JOONDALUP DRIVE FOR 3.1 km TO WANNEROO ROAD. CONTINUE ON THROUGH WANNEROO ROAD ALONG JOONDALUP DRIVE THEN ONTO NEAVES ROAD FOR 23.2 km AND TURN LEFT INTO MUCHEA SOUTH ROAD. GO 0.9 km AND TURN RIGHT INTO RUTLAND ROAD. THEN GO 1.8 km AND TURN LEFT ONTO GREAT NORTHERN HIGHWAY. TRAVEL NORTH ALONG GREAT NORTHERN HIGHWAY FOR 16.3 km AND TURN RIGHT INTO MADDERN ROAD . GO 1.9km, TURN LEFT INTO MADDERN SOUTH ROAD AND GO 1.3 km TO LOCKED FARM GATE ON THE LEFT. TURN LEFT INSIDE GATE AND FOLLOW EXISTING GRAVEL FIREBREAK TRACK AND ACROSS PADDOCK TO SITE.

4. EQUIPMENT  
PROPOSED NEW NBN OUTDOOR CABINET TO BE INSTALLED ON CONCRETE SLAB (<7.5m² GFA) WITHIN NBN LEASE AREA.

5. STRUCTURE  
PROPOSED NBN 4.5m MONOPOLE WITH HEADFRAME.

6. ANTENNA ACCESS  
PROPOSED ANTENNA ACCESS USING ACCESS LADDER WITH LAD-SAF OR EWP, BY QUALIFIED PERSONNEL ONLY.

7. EXISTING SERVICES  
THE CONTRACTOR SHALL IDENTIFY AND CONFIRM THE LOCATION OF ALL RELEVANT EXISTING SERVICES AS REQUIRED PRIOR TO THE COMMENCEMENT OF WORKS.

8. EXISTING SITE HAZARDS  
THE FOLLOWING HAZARDS ARE PRESENT ON THIS SITE:  
- EXPOSURE TO ELEMENTS  
- TRIP HAZARDS  
- SNAKES, TICKS AND INSECTS

9. ELECTRICAL SUPPLY  
REFER TO DRAWINGS 6T00-51-11-CHIE-C2, C3 FOR DETAILS.



10. TRANSMISSION LINK & RF CONFIGURATION  
REFER TABLE ON DRAWING 6T00-51-11-CHIE-A1 FOR DETAILS.

11. SITE SPECIFIC INFORMATION

- NO RETAINING WALLS ARE REQUIRED.
- SITE REQUIRES MINOR EARTHWORKS AND LEVELLING.
- GRAVEL SOIL WITH CLAY BELOW WITH SOME GRAVEL ROCK.
- ONE SMALL DEAD TREE TO BE REMOVED AND SOME LIGHT CLEARING OF VERY SMALL GRASS TREES.
- NEW ACCESS UPGRADE IS REQUIRED FOR APPROXIMATELY 70m FROM EXISTING GRAVEL FIREBREAK TRACK.
- NO LANDSCAPING IS PROPOSED
- STORMWATER TO BE DISSIPATED THROUGH GRAVEL FINISH WITHIN COMPOUND
- NO EASEMENTS ARE EXISTING OR PROPOSED

12. WIND LOAD PARAMETERS  
  
TBC

13. SITE SIGNAGE AND LOCATION
- SITE ENQUIRY SIGN, ON THE NBN ODC DOOR
  - HAZARDOUS VOLTAGE SIGN, ON NBN METER PANEL/PDB
  - CLIMBING FALL ARREST SIGNAGE, CLOSE TO CLIMBING RUNG OR TO LADDER LOCATION (REFER RAN HANDBOOK SECTION 15.4 FOR FURTHER DETAILS)
  - EME SIGNAGE, REFER NBN-STD-0025

Client:			
Client:			
Client:			
Project:		NATIONAL BROADBAND NETWORK SITE No: 6T00-51-11-CHIE CHITTERING NORTH 140 BLUE PLAINS ROAD CHITTERING 6084	
PRELIMINARY			
01 22/03/16 PRELIMINARY ISSUE			
Rev Date Revision Details			
DESIGNER: LJM			
CHECKED: RC			
APPROVED: CB			
Drawing Title:		SITE SPECIFIC NOTES	
Drawing No.		Revision	
6T00-51-11-CHIE-C1		01	



Aurecon Australia Pty Ltd ABN 54 005 139 873

SITE LOCATION



Attachment 1

COPYRIGHT © OPENSTREETMAP CONTRIBUTORS, CC BY-SA  
http://www.openstreetmap.org  
http://creativecommons.org/licenses/by-sa/2.0/  
Use of this image is subject to the terms and conditions of the Creative Commons Attribution-ShareAlike 2.0  
licence, the full licence of which can be accessed at http://creativecommons.org/licenses/by-sa/2.0/legalcode

SITE CO-ORDINATES	
MONOPOLE LOCATION	
DATUM: MGA (GDA94)	ZONE: 50
LATITUDE	-31.5033369°
LONGITUDE	116.053567°
EASTING	4 10 124
NORTHING	6 514 222

NOTES:

- THE NBN CONSUMERS MAINS ROUTE SHOWN ON THE DRAWINGS IS INDICATIVE ONLY. ELECTRICAL CONTRACTOR TO DETERMINE EXACT ROUTE. ELECTRICAL CONTRACTOR TO LOCATE AND IDENTIFY EXISTING U/G SERVICES PRIOR TO COMMENCEMENT OF WORK.

LEGEND

- A E — A E — EXISTING O/H POWER ROUTE
- UE — UE — EXISTING U/G POWER ROUTE
- NUE — NUE — PROPOSED NBN U/G POWER ROUTE
- / — / — EXISTING PROPERTY BOUNDARY
- / — / — EXISTING STOCK FENCE
- — — EXISTING 4WD GRAVEL ACCESS/FIREBREAK

Item 10.1.1



OVERALL SITE PLAN

SCALE 1:5000

Client:



Page 38

Client:



ERICSSON

Client:

Project:

NATIONAL BROADBAND  
NETWORK  
SITE No: 6T00-51-11-CHIE  
CHITTERING NORTH  
140 BLUE PLAINS ROAD  
CHITTERING  
6084

PRELIMINARY

01 22/03/16 PRELIMINARY ISSUE  
Rev Date Revision Details



DESIGNER: LJM

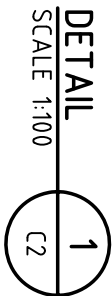
CHECKED: RC

APPROVED: CB

Drawing Title:  
OVERALL  
SITE PLAN

Drawing No. 6T00-51-11-CHIE-C2  
Revision 01





## LEGEND

1. THE NBN CONSUMERS MAINS AND NBN SUBMAIN ROUTE SHOWN ON THE DRAWINGS IS INDICATIVE ONLY. ELECTRICAL CONTRACTOR TO DETERMINE EXACT ROUTE. ELECTRICAL CONTRACTOR TO LOCATE AND IDENTIFY EXISTING U/G SERVICES PRIOR TO COMMENCEMENT OF WORK.
2. CONTOUR INTERVALS AT 0.5m.
3. ALL HEIGHTS INDICATED ARE IN METERS TO A.H.D.

## LEGEND

- | DATE   | BY  | DESCRIPTION                   |
|--------|-----|-------------------------------|
| 10-1-1 | NUE | PROPOSED NBN U/G POWER ROUTE  |
| 10-1-1 | NUE | PROPOSED NBN COMPOUND FENCE   |
| 10-1-1 | NUE | EXISTING 4WD GRAVEL FIREBREAK |

**Client:**



**ERICSSON**

**Client:**

Project:

NATIONAL BROADBAND  
NETWORK  
SITE No. 6T00-51-11-CHIE  
CHITTERING NORTH  
140 BLUE PLAINS ROAD  
CHITTERING  
6084

# PRELIMINARY

01 22.03.16 PRELIMINARY ISSUE

Rev	Date	Revision Details
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Aurecon Australia Pty Ltd ABN 54 005 139 873

DESIGNER: LJM

CHECKED: RC

APPROVED: CB

Drawing Title:

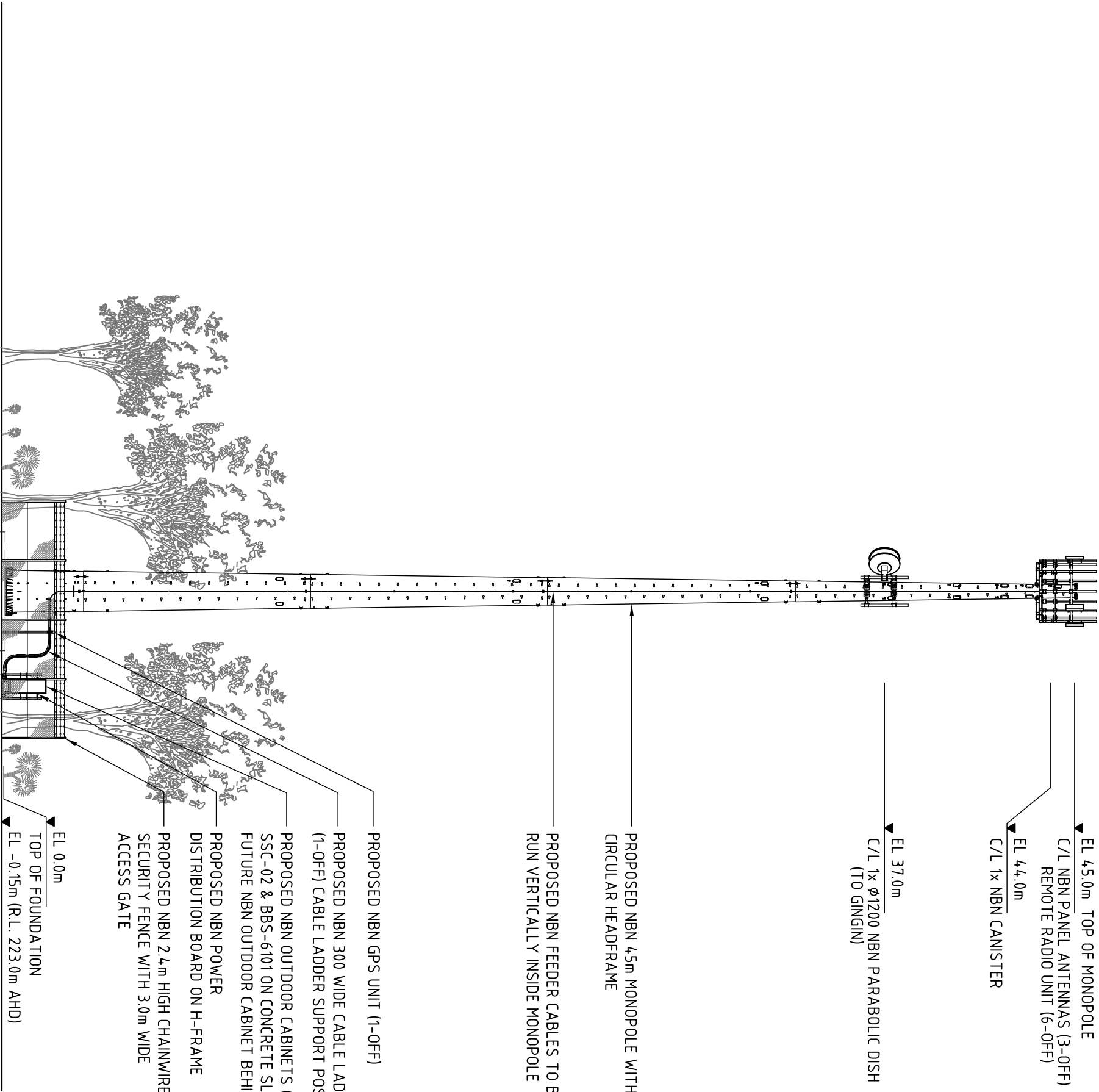
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Drawing No.

6T00-51-1-CHIE-C3

## Revision

01



ERICSSON

Project:  
NATIONAL BROADBAND NETWORK  
SITE No: 6T00-51-11-CHIE  
CHITTERING NORTH  
140 BLUE PLAINS ROAD  
CHITTERING  
6084

PRELIMINARY

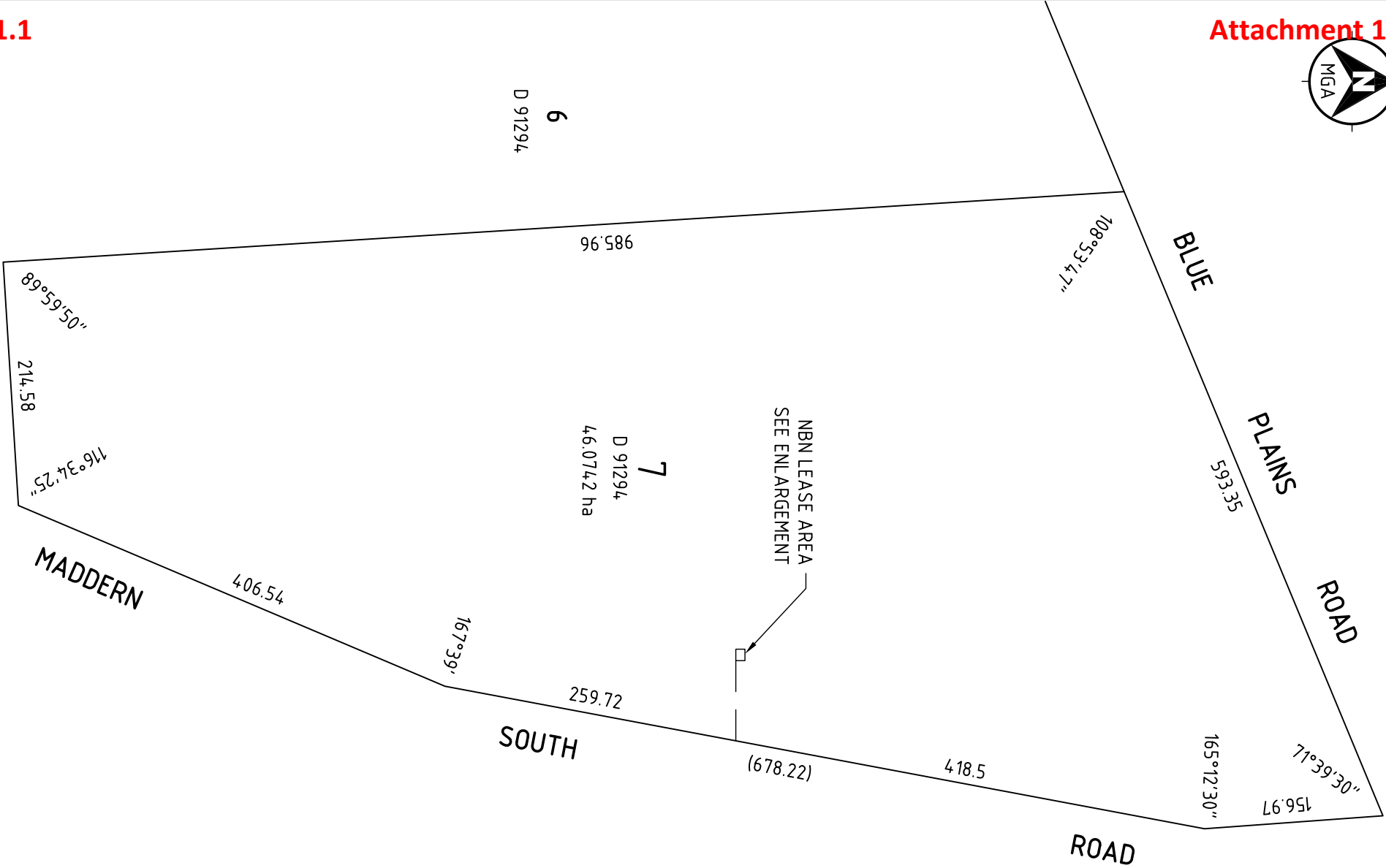
01	22.03.16	PRELIMINARY ISSUE
Rev	Date	Revision Details



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CHECKED:	RC
APPROVED:	CB

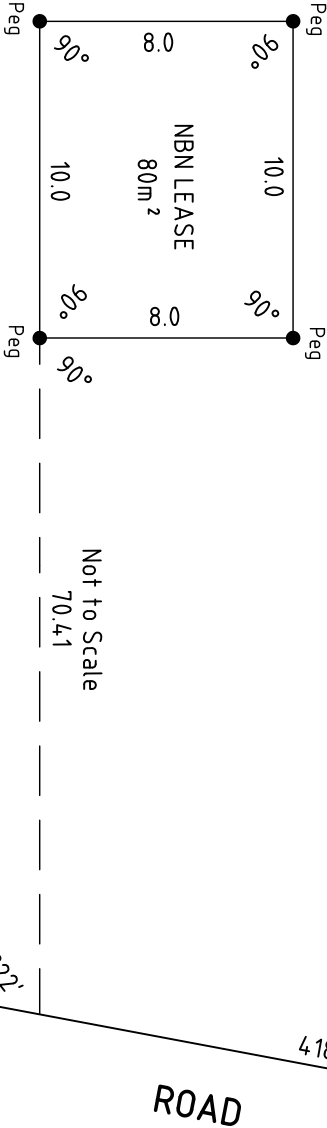
Drawing Title:  
SITE ELEVATION AND DETAILS

Drawing No.	Revision
6T00-51-11-CHIE-C4	01



LEASE PLAN

SCALE 1:5000

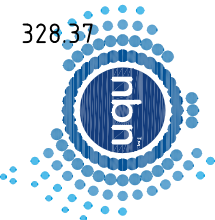


ENLARGEMENT

SCALE 1:250

NOTES:

1. ALL INTERNAL ANGLES OF NBN LEASE AREA ARE 90°.
2. REFER TO CERTIFICATE OF TITLE FOR ENCUMBRANCES.
3. REFER TO CERTIFICATE OF TITLE AND DIAGRAM 91294 FOR BOUNDARY AND TITLE INFORMATION.
4. WHITE WOODEN PEGS PLACED AT CORNERS OF LEASE AREA.
5. SURVEY CARRIED OUT USING RTK GPS. POSITION ACCURATE TO +/- 30mm.



NATIONAL BROADBAND NETWORK  
SITE No: 6T00-51-11-CHIE  
CHITTERING NORTH  
140 BLUE PLAINS ROAD  
CHITTERING  
6084






DESIGNER:	CGB
CHECKED:	CEB
APPROVED:	CEB
Drawing Title:	


LEASE PLAN

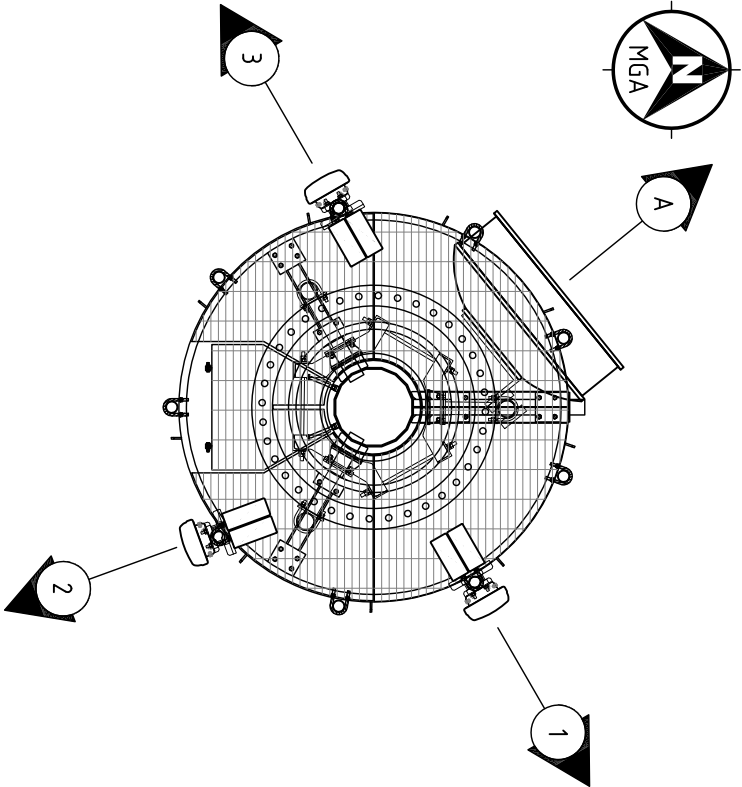
Drawing No.	6T00-51-11-CHIE-C5	Revision	01
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ANTENNA CONFIGURATION

Attachment 1

ANTENNA DETAIL										MAIN FEEDER				RRU DETAIL				RF TAIL		RET CABLE	
SECTOR	SYMBOL	TYPE	DIMENSION HxWxD	HEIGHT €	AZIMUTH (TN)	P1 & P2 eTILT	P3 & P4 eTILT	MECH DOWN TILT	TYPE	OVERALL LENGTH	CANISTER HEIGHT	CANISTER TO RRU LENGTH	TYPE	QTY	LOCATION	HEIGHT €	TYPE	LENGTH	TYPE	LENGTH	
1		ARGUS SSPX310R	750x300x115	4.5m	60°	5°	5°	0°	H&S HYBRID MK II ½ Ø27.5mm	50m	4.4m	4.5m	RADIO 2218 B4.2	2 OFF	BEHIND ANTENNA	4.5m	H&S 1/2" BIRD PROOF LISCA CABLE	1.5m	1/TSR 484 21/2000	2.0m	
2		ARGUS SSPX310R	750x300x115	4.5m	160°	7°	7°	0°				4.5m	RADIO 2218 B4.2	2 OFF	BEHIND ANTENNA	4.5m	H&S 1/2" BIRD PROOF LISCA CABLE	1.5m	1/TSR 484 21/2000	2.0m	
3		ARGUS SSPX310R	750x300x115	4.5m	24.0°	7°	7°	0°				4.5m	RADIO 2218 B4.2	2 OFF	BEHIND ANTENNA	4.5m	H&S 1/2" BIRD PROOF LISCA CABLE	1.5m	1/TSR 484 21/2000	2.0m	
GPS		KRE 1012082/1	Ø69 x 96	2.5m					LDF1-50	5m											

PARABOLIC						FEEDER		RAU	
SECTOR	SYMBOL	TYPE	DIMENSION HxWxD	HEIGHT €	AZIMUTH (TN)	DESTINATION	TYPE	OVERALL LENGTH	QTY RAU
A		PARABOLIC	ø1200	37m	321°	GINGIN	LDF1-50	50m	1 OFF



ANTENNA SETOUT PLAN

SCALE 1:50





## APPENDIX C – EME REPORT





## Environmental EME Report

### Chittering North 140 Blue Plains Road, CHITTERING WA 6084

This report provides a summary of Calculated RF EME Levels around the wireless base station

Date 23/2/2016

RFNSA Site No. 6084017

## Introduction

The purpose of this report is to provide calculations of EME levels from the existing facilities at the site and any proposed additional facilities.

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at Chittering North 140 Blue Plains Road CHITTERING WA 6084. These levels have been calculated by Ericsson using methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

The maximum EME level calculated for the proposed systems at this site is 0.073% of the public exposure limit.

## The ARPANSA Standard

ARPANSA, an Australian Government agency in the Health and Ageing portfolio, has established a Radiation Protection Standard specifying limits for general public exposure to RF transmissions at frequencies used by wireless base stations. The Australian Communications and Media Authority (ACMA) mandates the exposure limits of the ARPANSA Standard.

## How the EME is calculated in this report

The procedure used for these calculations is documented in the ARPANSA Technical Report "Radio Frequency EME Exposure Levels - Prediction Methodologies" which is available at <http://www.arpansa.gov.au>.

RF EME values are calculated at 1.5m above ground at various distances from the base station, assuming level ground.

The estimate is based on worst-case scenario, including:

- wireless base station transmitters for mobile and broadband data operating at maximum power
- simultaneous telephone calls and data transmission
- an unobstructed line of sight view to the antennas.

In practice, exposures are usually lower because:

- the presence of buildings, trees and other features of the environment reduces signal strength
- the base station automatically adjusts transmit power to the minimum required.

Maximum EME levels are estimated in 360° circular bands out to 500m from the base station.

These levels are cumulative and take into account emissions from all mobile phone antennas at this site.

The EME levels are presented in three different units:

- volts per metre (V/m) – the electric field component of the RF wave
- milliwatts per square metre (mW/m<sup>2</sup>) – the power density (or rate of flow of RF energy per unit area)
- percentage (%) of the ARPANSA Standard public exposure limit (the public exposure limit = 100%).

## Results

The maximum EME level calculated for the proposed systems at this site is 1.65 V/m; equivalent to 7.26 mW/m<sup>2</sup> or 0.073% of the public exposure limit.

## Radio Systems at the Site

There are currently no existing radio systems for this site.

It is proposed that this base station will have equipment for transmitting the following services:

Carrier	Radio Systems
NBN Co	LTE3500 (proposed)

## Calculated EME Levels

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined.

Distance from the antennas at Chittering North 140 Blue Plains Road in 360° circular bands	Maximum Cumulative EME Level – All carriers at this site					
	Existing Equipment			Proposed Equipment		
	Electric Field V/m	Power Density mW/m <sup>2</sup>	% ARPANSA exposure limits	Electric Field V/m	Power Density mW/m <sup>2</sup>	% ARPANSA exposure limits
0m to 50m				0.43	0.49	0.0049%
50m to 100m				0.61	1.0	0.01%
100m to 200m				1.017	2.74	0.027%
200m to 300m				1.65	7.26	0.073%
300m to 400m				1.62	7.0023	0.07%
400m to 500m				1.27	4.31	0.043%
<b>Maximum EME level</b>				1.65	7.26	0.073
				274.87 m from the antennas at Chittering North 140 Blue Plains Road		

## Calculated EME levels at other areas of interest

This table contains calculations of the maximum EME levels at selected areas of interest that have been identified through the consultation requirements of the Communications Alliance Ltd Deployment Code C564:2011 or via any other means. The calculations are performed over the indicated height range and include all existing and any proposed radio systems for this site.

Additional Locations	Height / Scan relative to location ground level	Maximum Cumulative EME Level All Carriers at this site Existing and Proposed Equipment		
		Electric Field V/m	Power Density mW/m <sup>2</sup>	% of ARPANSA exposure limits
No locations identified				

## RF EME Exposure Standard

The calculated EME levels in this report have been expressed as percentages of the ARPANSA RF Standard and this table shows the actual RF EME limits used for the frequency bands available. At frequencies below 2000 MHz the limits vary across the band and the limit has been determined at the Assessment Frequency indicated. The four exposure limit figures quoted are equivalent values expressed in different units – volts per metre (V/m), watts per square metre (W/m<sup>2</sup>), microwatts per square centimetre (μW/cm<sup>2</sup>) and milliwatts per square metre (mW/m<sup>2</sup>). Note: 1 W/m<sup>2</sup> = 100 μW/cm<sup>2</sup> = 1000 mW/m<sup>2</sup>.

Radio Systems	Frequency Band	Assessment Frequency	ARPANSA Exposure Limit (100% of Standard)
LTE 700	758 – 803 MHz	750 MHz	37.6 V/m = 3.75 W/m <sup>2</sup> = 375 μW/cm <sup>2</sup> = 3750 mW/m <sup>2</sup>
WCDMA850	870 – 890 MHz	900 MHz	41.1 V/m = 4.50 W/m <sup>2</sup> = 450 μW/cm <sup>2</sup> = 4500 mW/m <sup>2</sup>
GSM900, LTE900, WCDMA900	935 – 960 MHz	900 MHz	41.1 V/m = 4.50 W/m <sup>2</sup> = 450 μW/cm <sup>2</sup> = 4500 mW/m <sup>2</sup>
GSM1800, LTE1800	1805 – 1880 MHz	1800 MHz	58.1 V/m = 9.00 W/m <sup>2</sup> = 900 μW/cm <sup>2</sup> = 9000 mW/m <sup>2</sup>
LTE2100, WCDMA2100	2110 – 2170 MHz	2100 MHz	61.4 V/m = 10.00 W/m <sup>2</sup> = 1000 μW/cm <sup>2</sup> = 10000 mW/m <sup>2</sup>
LTE2300	2302 – 2400 MHz	2300 MHz	61.4 V/m = 10.00 W/m <sup>2</sup> = 1000 μW/cm <sup>2</sup> = 10000 mW/m <sup>2</sup>
LTE2600	2620 – 2690 MHz	2600 MHz	61.4 V/m = 10.00 W/m <sup>2</sup> = 1000 μW/cm <sup>2</sup> = 10000 mW/m <sup>2</sup>
LTE3500	3425 – 3575 MHz	3500 MHz	61.4 V/m = 10.00 W/m <sup>2</sup> = 1000 μW/cm <sup>2</sup> = 10000 mW/m <sup>2</sup>

## Further Information

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is a Federal Government agency incorporated under the Health and Ageing portfolio. ARPANSA is charged with responsibility for protecting the health and safety of people, and the environment, from the harmful effects of radiation (ionising and non-ionising).

Information about RF EME can be accessed at the ARPANSA website, <http://www.arpansa.gov.au>, including:

- Further explanation of this report in the document “Understanding the ARPANSA Environmental EME Report”
- The procedure used for the calculations in this report is documented in the ARPANSA Technical Report; “Radio Frequency EME Exposure Levels - Prediction Methodologies”
- the current RF EME exposure standard  
Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), 2002, ‘Radiation Protection Standard: Maximum Exposure Levels to Radiofrequency Fields — 3 kHz to 300 GHz’, Radiation Protection Series Publication No. 3, ARPANSA, Yallambie Australia.  
[Printed version: ISBN 0-642-79400-6 ISSN 1445-9760] [Web version: ISBN 0-642-79402-2 ISSN 1445-9760]

The Australian Communications and Media Authority (ACMA) is responsible for the regulation of broadcasting, radiocommunications, telecommunications and online content. Information on EME is available at <http://emr.acma.gov.au>

The Communications Alliance Ltd Industry Code C564:2011 ‘Mobile Phone Base Station Deployment’ is available from the Communications Alliance Ltd website, <http://commsalliance.com.au>.

Contact details for the Carriers (mobile phone companies) present at this site and the most recent version of this document are available online at the Radio Frequency National Site Archive, <http://www.rfnsa.com.au>.

Agency Submissions		
Submitter	Comment	Shire Officer Response
Chittering Landcare Group	<p>The Chittering Landcare Group has reviewed the above proposal and makes the following comments:</p> <ul style="list-style-type: none"><li>While the site is not identified as an Environmentally Sensitive Site by the Department of Environmental Regulation (DER) nor a Bush Forever site, the site is within an High Indicative Value Conservation Area and corridor in the endorse Shire of Chittering Biodiversity Strategy. Bush Forever sites are only identified within the Metropolitan Region and is not applicable to rural Shires outside the MR (see attached map).</li><li>From the photographs provided it appears that the actual site is mostly cleared and in poor condition. The Group would have no objections provided that no trees other than the dead tree on the site and the minimum number of grass trees on the access track are removed.</li><li>All contractors entering the site ensure that good Phytophthora Dieback hygiene protocol is followed. The site is amongst jarrah trees which are susceptible to this soil borne pathogen.</li></ul>	
Department of Aboriginal Affairs	<p>Thank you for your letter dated 31<sup>st</sup> August 2016 seeking comments in relation to the above mentioned proposal.</p> <p>As this proposal does not affect land held by the Aboriginal Lands Trust, the Department of Aboriginal Affairs has no comment at this time.</p>	
Department of Planning	<p>Thank you for your letter dated 31 August 2016, inviting the Department of Planning to comment on the above proposal.</p> <p>The Western Australian Planning Commission's (WAPC) <i>State Planning Policy 5.2 – Telecommunications Infrastructure</i> (SPP 2.5) provides clear guidance on the siting, location and design of the telecommunications infrastructure. Section 5.1.1 establishes that the benefit of improved telecommunications services should be balanced with the visual impact on the surrounding area.</p> <p>The Department's viewshed mapping for Great Northern Highway (attached), which has been previously forwarded to the Council, indicates that the ground level of the site of the proposed tower would not be visible from Great Northern Highway in areas with no intervening vegetation. However, it is likely that the upper portion will be visible from the Highway due to its elevated location, and that this would be the case despite tree cover in the area.</p> <p>After construction, the Shire may wish to identify locations near the site from which the proposed tower is a dominant feature in the landscape. Screen planting could be located along Blue Plains Road, Maddern South Road or along roads within the nearby Rural Residential estate to reduce the visual prominence of the proposed tower.</p> <p>The proposal to leave the pole unpainted steel is appropriate given that it will be largely seen against the sky as opposed to there being a vegetated backdrop. However, the structure would be less visually intrusive if there was a more slimline arrangement in which the panel antennae and dishes</p>	

	<p>were fixed directly onto the pole rather than attached to the headframe, as proposed.</p> <p>Another document that may be useful is the WAPC's 2007 publication, <i>Visual Landscape Planning in Western Australia: A manual for evaluation, assessment, siting and design</i>. This document contains specific advice on telecommunications towers.</p> <p>I trust this information assists the Shire in determining the development applications.</p>		
Public Submissions			
Public 1 – OBJECT	<p>We oppose the installation of the tower for a number of reasons:</p> <p>Firstly, we feel that the tower site is too close to our residence which is located at <b>[REMOVED FOR PRIVACY] directly opposite the proposed site of the tower.</b> We feel that there are potential health risks associated with this technology and do not feel comfortable living close to it.</p> <p>We also have concerns as to the possible negative effect this may have on the local native wildlife.</p> <p>The local area (Blue Plains Estate) has previously been classified as “Eco Sensitive” by the Shire of Chittering and a development of this sort may have negative long term effects.</p> <p>We would like to request that Telstra and the Shire of Chittering look for other options as we definitely do not support this one.</p>		
Public 2 – OBJECT	<p>I strictly oppose this development application. As a landowner within metres of this proposed tower I/we believe and feel it will be a complete eye sore and detract from the natural beauty of our area and destroy the very reason I/we choose to live in this environment in the first place.</p> <p>The Shire have not stated clearly enough how high, how wide and the environmental impact this proposed tower will stand and have. Nor what lighting if any will be installed.</p> <p>We already have below ground telecommunication broadband through Telstra Installation so therefore <u>do not</u> understand the reasoning or justification of a proposal that is simply a complete waste of funding from this supposed installation company and ratepayers hard earned money that the Shire have chosen to partly use on this survey.</p> <p>I ask/dare any councillor to say yes to this application if it was to be installed next door to their property, and see if you would like it.</p>		
Public 3 – SUPPORT	<p>We support this facility; it will be good to have better communication facilities in this area.</p> <p>Hope it will not be too much of an eye-sore, as this would be a problem for those living directly opposite so hope this has been taken into consideration.</p> <p>However, we are very keen to have the NBN in our area.</p>		

Public 4 – OBJECT	<p>Please register this correspondence as a <b>strong objection</b> to the application <i>“to utilise an NBN Fixed Wireless Facility. The purpose of this development is to provide an open access shared communication infrastructure to improve communication in this area.”</i></p> <p>We believe that the submission is inaccurate, misleading and does not provide full disclosure. The following points illustrate our dissatisfaction with the proposal:</p> <p><b>Benefit to the community</b></p> <ul style="list-style-type: none"><li>• Already the area has a fibre optic cable network adequate for the community therefore this proposal would be an addition and duplication of service</li><li>• Benefitting 249 premises only in the community and therefore not all the residents in the area</li><li>• A connection to the Gin Gin tower could be located farther away from existing residences and blocks recently sold</li><li>• Additional charges would result to each household potentially at a higher premium than the basic service currently offered</li><li>• Health issues associated with these facilities have continually been voiced (as in the case of Bells Reserve). Whilst ARPANSA advocates that “Based on current research there are no established health effects” other research sheds some doubt on this.</li></ul> <p><b>Environmental Issues</b></p> <ul style="list-style-type: none"><li>• The area of Blue Plains Estate which would be affected by this proposal has been known from the original development, to be a fauna and flora area of significance in the Shire of Chittering. Residents have welcomed this and have actively sought to preserve the natural state of their properties, protecting wild life and native wild flowers. Evidence from around the world suggested that fixed wireless facilities have been found to be surrounded by a zone devoid of wild life. Some research has indicated that the successful rearing of healthy native birds have been impacted.</li><li>• The Australian threatened species of Carnaby’s Cockatoo have successfully nested and raised young on the surrounding properties of the proposed facility. Many cockatoos have returned for several years to those nesting sites. In an effort to increase the declining population nesting tubes have been installed on surrounding properties. <b>The mere suggestion that the facility could be detrimental to the wellbeing of a threatened species is totally unacceptable.</b></li></ul> <p><b>Visual Amenity</b></p> <ul style="list-style-type: none"><li>• Negative impact to the surrounding residences which could affect sales and property values</li><li>• Potential for additional rented communication infrastructure resulting in a more disagreeable structure</li><li>• Whilst it may be argued that the surrounding vegetation around the site will render the pole relatively unseen, the positioning of the pole “may still be visible from some aspects”</li></ul>	
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	<p><b>Residences</b></p> <ul style="list-style-type: none"><li>• It could be argued that at the time Aurecon approached the applicant, the land opposite Maddern Road was in fact unimproved however this is currently not the case, as the development has now progressed to lots being sold.</li><li>• Of interest, has the developer been advised of the proposed structure?</li><li>• Have those who have recently purchased blocks been given the opportunity to make a submission to Council on the proposed facility? If not, then perhaps this should be actively be sought and the period of response be extended.</li><li>• The areas surrounding the proposed structure are predominantly rural land however there are existing rural residences directly opposite the property in question across Maddern Road as well as the blocks which have recently been sold and those offered for sale.</li></ul> <p>We hope that during the formulation of the Officer Recommendation to Council that serious consideration be given to the concerns raised by residents in this area and that the responses to these concerns from the service provider/applicant be thoroughly examined prior to submission to Council.</p> <p>Council must be provided with full disclosure in order to make informed decisions on behalf of the community.</p>	
<p><b>Public 5 – OBJECT</b></p>	<p>In response to your letter dated 31<sup>st</sup> August 2016 for an application by Aurecon to use a part of Wayne and Suzanne Wright’s property to erect a NBN Fixed Wireless Facility on the said property.</p> <p>We STRONGLY OPPOSE the application put forward by the applicant for the following reasons:</p> <ol style="list-style-type: none"><li>1. Worldwide research has documented that the erection of these towers and others similar to these have had a devastating effect on the fauna, flora and birdlife surrounding the tower. As property owners we have chosen to have our property listed on the “Land for Wildlife” register. We are very passionate about protecting and ensuring that all fauna and flora is protected so that it can survive in a never ending world where mankind has become selfish and greedy to the point where no thought is given to anything that cannot help itself to survive resulting in, often, becoming extinct.</li><li>2. We also, are members of the Birds Australia Society and one of our recent project was having a “Cockatube” erected to help with the breeding of the Carnaby Cockatoos which breed every year on our property. These birds are currently on the endangered list.</li><li>3. Research has also documented that many people living within close proximity to these towers have also experience many and varied illnesses. Our health is a HUGE concern and we don’t want to become one of these statistics.</li><li>4. We believe that the community is already serviced by a fibre optics network with adequate speed to broadband. This was achieved approximately two years ago when an upgraded was implemented at the Muchea DSLAM. Our belief is that NOT ALL residents WOULD</li></ol>	

	<p>BENEFIT from this proposal as the tower would only provide service to 249 premises in the local area.</p> <p>5. The visual impact of the tower would also be very unsightly as it is in close proximity to our property and honestly, who wants to see a 45m pole with several satellite dishes and other equipment attached every day. We CERTAINLY DON'T!! That is one reason why we chose to move from the city to the rural area to the rural area to enjoy the clear skies and starry nights. Certainly NOT to have lights etc glaring upon us!!</p>		
<b>Public 6 – OBJECT</b>	<p>Please consider the concerns we have regarding this proposal.</p> <p>This letter is in response to your letter dated 31<sup>st</sup> August 2016, regarding an application put forward by Aurecon to utilise a portion of Wayne and Suzanne Wright’s property for the purposes of the construction of an NBN Fixed Wireless Facility.</p> <p>As landowners in the area, we are <b>very strongly opposed</b> to the establishment of this Facility at this location, for the following reasons:</p> <ul style="list-style-type: none"><li>• The purpose for purchasing land in this area is for the country idyl, to have a tower of this magnitude so close to residential properties is a blot on the landscape and seriously detracts from that country feel.</li><li>• The local community is already adequately served by a fibre optics network with high speed broadband services, as a result of the Telstra upgraded to the Muchea DSLAM and presence of fibre optic to the node approximately 2.5 years ago <b>which already delivers uploads of 20MB per second (Mbps)</b> the Federal Governments target for the NBN over copper. With this capability in place, the Telco Service providers also <b>have the ability to roll out fibre to the residence in the future in the same manner they are currently undertaking in other areas which would provide the capability of 100MB per second to residence instead of up to 25MB per second being offered to a small number of our community at a sacrifice to a much larger cross section of the community that would not benefit from this proposal.</b></li></ul> <p>A stated by the Country Wide State Manager of Telstra during the upgrade, the enhancements to the Muchea exchange will enable Telstra to provide speeds of 20MB download to residents in the Chittering area via existing copper lines. This was clearly an accurate statement with resident’s speeds increasing from less than 1MB per second to a constant 19-20MB per second over the last two years with no detectable degradation to service as additional residences have been connected – as per tests utilising Telstra’s SpeedTest tools.</p> <p>It should also be noted that <b>none of the major Telcos provide the above speeds of 50MB in their standard plans</b> and residents would need to <b>pay a premium to achieve speeds remotely close to this.</b> These speeds are more targeting businesses and of little or no benefit to the typical resident.</p>		



	<p>As noted the tower would only service <b>249 premises in the local area</b>. As such it will <b>not offer a service to all residents within the area</b> and is primarily, as stated clearly in the submission, <b>to provide a link to their GinGin Tower</b> that could be achieved by locating it away from rural residential properties in the area proposed. The 249 properties with the potential for service from this tower is a <b>mere token gesture to secure a link to the GinGin Tower and offers little or no real value to the residents in the proposed and expanding surrounding areas who are already serviced by fibre optics to the node and 20MBs to their properties</b>. In many instances it would be suggested that these property owners may not even be aware that this is already available to them.</p> <ul style="list-style-type: none"><li>• Therefore, <b>the installation of a tower in this location breaches the Government’s own condition that there will be no doubling up of services</b> that are already provided in a region. Refer to the Federal Government’s adequately-served-policy paper.</li><li>• Residents of the area will potentially be <b>paying more for the same service</b> received today. Comparing identical plans with Telstra for Wireless and ADSL2+ Telstra will charge \$120 per month with additional upfront \$89 cost for wireless whereas they currently charge \$99 with no upfront costs for the same service delivered via ADSL2+. Therefore, it is in the best interested of the community to connect to the already available upgraded Telstra infrastructure and for the Shire to work with Telstra to continue to roll this service out as it is already doing so in <b>other rural residential communities as confirmed by the Country Wide State Manager</b>.</li><li>• The <b>documentation is deliberately misleading</b> to the community, as the document states <i>“Note that the proposed 45m monopole is considered to be the smallest structure capable of meeting coverage and operational objectives. A monopole is a structure that has a small profile and is considered the least visually intrusive design option for a new base station. Furthermore, the pole will unpainted (galvanised steel), which over time has been demonstrated to most successfully blend with lighter backgrounds such as the sky.”</i></li></ul> <p>However, as this is just the NBN infrastructure, to provide them with the ability to rent space to Telcos to install their satellite dishes and other associated equipment, which the Council and community will have no say about, the <b>end result will be a monopole tower with multiple satellite dishes spanning the length of the tower, making it a more significant and unsightly installation</b>. This information would have been known at the time of application and should have been included. On these grounds alone the submission should be rejected and should they wish to re-submit they need to do so with <b>full disclosure</b>.</p> <p>The Applicant states that the proposed location of the Facility will ... <i>‘minimise the visual impact on the immediate and surrounding area’</i> and that... <i>“Whilst the structure may be visible from some aspects, based on the siting the proposed development will not result in adverse impacts on visual amenity in the local area.”</i></p>	
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	<p>And it is further that... <i>“The surrounding area consists predominantly of rural land with low intensity agricultural uses. The built form and typical land uses on adjoining properties and surrounding areas are predominantly single detached dwellings and agricultural facilities on rural lots. Separation between the proposed development location on the subject property and the closest residential dwelling on an adjoining property is approximately 220m to the east. No community sensitive sites have been identified within a 500m radius of the proposed development location on the subject property.”</i></p> <p>However, this is not accurate, the Applicant refers to an inaccurate zoning map (Figure 7 Page 24) which does not reflect that <b>the land opposite on Maddern South Road, is now rural residential blocks (Chittering Springs Estate) currently developed, and on the market or sold, resulting in residential properties being close to the facility and the owners of these properties will certainly be negatively visually impacted by the Facility.</b> In addition, those properties in Blue Plains Estate on Maddern South Road and adjoining Leschenaultia Drive and Jacaranda Avenue will be negatively visually impacted.</p> <ul style="list-style-type: none"><li>• The premise that there is only a single residential property within 100m – 22m to the East is <b>therefore grossly and intentionally misleading in the proposal.</b> The sub division and re zoning plans would have been well known at the time of this submission and on these grounds alone the proposal should not have been allowed to proceed.</li></ul> <p>In closing there are serious omissions, or misleading statements, in the submission that require much more scrutiny on the part of the Shire as our representative.</p> <p>Given the primary stated purpose of the facility is to provide a link to GinGin whilst servicing such a small property of an already serviced community, there are no grounds to place a facility within the immediate proximity of a new, and established rural residential estate(s), when there is a large number of sites available on agricultural land for the NBN to consider to achieve the above link. The request to place it next to rural residential areas is simply a cost saving exercise at the expense of those within the immediate area and should not be considered further.</p> <p>The additional costs that would be imposed on residents to use a more expensive service for the same benefits should also not be considered lightly by the Shire in considering the benefits of this proposal.</p> <p>The ability to provide a service to a mere 249 residents is also clearly not in the long term interest of the Shire, or the local Community, and requires much more consultation with the NBN before such proposals can be properly assessed. With proposed developments within 2kms of the proposed site, that would already exceed the number of residents that could be serviced by this facility, it is difficult to consider an argument that this facility will benefit</p>	
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	<p>the broader Chittering community outside of the obvious benefits of providing a cheaper solution for the NBN which is federally funded and is more than able to bear the costs of locating in an area that would require additional costs to provide access and electricity etc. The desire for the NBN to minimise its operational costs should not under any circumstances be at the expense of local community residents.</p> <p>We hope that the Shire will give due consideration to a number of the concerns we have with the proposal and the omission, or inclusion of misleading information in this application.</p>		
<b>Public 7 – OBJECT</b>	<p>This letter is in response to your letter dated 31<sup>st</sup> August, 2016 regarding an Application put forward by Aurecon, to utilise a portion of Wayne and Suzanne Wright’s property for the purposes of the construction of an NBN Fixed Wireless Facility.</p> <p>As residents of the area, we are <b>very strongly opposed</b> to the establishment of this Facility at this location, for the following reasons:</p> <p>1. <b>The proposal is misleading and purports to service a very small proportion of the local community that is already more than adequately served by the Fibre Optics Network and Telstra (major Telco in the area) have no plans to expand services in Chittering. The sole/primary purpose is to be a terminal site to secure a link to the GinGin tower, and of no, or little, benefit to the local or broader Chittering community.</b></p> <p>It is stated in the Application that the “NBN<sup>TM</sup>’s fixed wireless network is designed to offer service providers (i.e. Telcos) with wholesale access speeds of up to 50Mbps for downloads and 20Mbps for uploads”. And it is further stated that “The proposed Fixed Wireless facility at Chittering North is a transmission end site (refer to Figure 1). A terminal site is proposed to <b>provide fixed wireless internet services to 249 premises in the local area.</b>”</p> <p>However, <b>this local community is already more than adequately served</b> by a fibre optics network with high speed broadband service. Telstra upgraded the Muchea Exchange, approximately 2.5 years ago, as part of the National program to install ‘Top Hats’ on existing infrastructure, and ensured the presence of fibre optics to the node (i.e. already located within streets in the vicinity of the proposed facility), <b>which already delivers uploads of 20Mbps</b> (i.e. the Federal Government’s target for the NBN over copper). With this capability in place, the Telco Service providers <b>have the ability to roll out fibre to residences in the future, in the same manner they are currently undertaking in other areas, which would provide the capability of 100Mbps to residences, far exceeding the 25Mbps proposed for a small number of premises (249) which would be at a sacrifice, to a much larger cross section of the community, who also would not benefit from this proposal.</b></p>		

	<p>As stated by the Country Wide State Manager of Telstra during the upgrade, <i>‘the enhancements to the Muchea exchange will enable Telstra to provide speeds of 20mbps to residents in the Chittering area via existing copper lines’</i>. This was clearly an accurate statement with residents’ speeds increasing from less than 1mbps to a constant 19-20mbps, over the last two years, with no detectable degradation to service as additional residencies have been connected – as per tests utilising Telstra’s Speed Test tools.</p> <p>The Facility is purported to provide the ability to provide speeds of up to 50mbps. However, it should be noted that <b>none of the major Telcos provide 50mbps in their standard plans</b>, and residents would need to <b>pay a premium to achieve speeds remotely close to this</b>. These speeds are more targeting businesses, and are of little, or no, benefit to the typical resident. <b>The federal government in its own policy statements, supported by industry leaders, has disputed the need to provide services to residential areas above 20mbps, and as such, the statement that this is necessary to support the local community is not aligned with the policy under which the NBN is administered, and misleading to the residents within the Shire of Chittering.</b></p> <p>The Facility is primarily, as stated clearly in the submission, <b>to provide a link to their GinGin tower</b>, which should and could be achieved by locating it away from rural residential properties in the area proposed. <b>It was confirmed in a discussion with Telstra (19/09/2016) that whilst they have plans to expand services in Bullsbrook and GinGin in the near future, there are no plans for expansion in Chittering which is already serviced by high speed broadband (ADSL2+) as stated previously.</b> This can be confirmed by the Shire by contacting Telstra directly, and certainly challenges the premise provided that this will bring additional services to the broader Chittering community.</p> <p>The 249 properties with the potential for service from this Facility is a <b>mere token gesture to secure a link to the GinGin tower and offers little or no real value to the residents in the proposed and expanding surrounding areas who are already serviced by fibre optics to the node and 20Mbps to their properties.</b> In many instances it would be suggested that these property owners may not even be aware that this is already available to them.</p> <p><b>The installation of a Facility in this location, also breaches the Government’s own condition that there will be no doubling up of services</b> that are already provided in a region. Refer to the Federal Government’s adequately-served-policy paper.</p> <p>Residents of the area would also potentially be required to <b>pay more for the same service</b> received today. Comparing identical plans with Telstra for Wireless and ADSL2+, Telstra will charge \$120 per month with an additional upfront \$89 cost for wireless, whereas, they</p>	
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	<p>currently charge \$99 with no upfront costs for the same service delivered via ADSL2+. Therefore, it is in the best interest of the community to connect to the already available upgraded Telstra infrastructure, and for the Shire to work with Telstra to continue to roll this service out as it is already doing so, in <b>other rural residential communities as confirmed by the Telstra Country Wide State Manager.</b></p> <p>2. <b>Proximity of the Facility to Rural Residential Property and Visual Impact.</b> The <b>documentation is deliberately misleading</b> to the community, as the document states: <i>“Note that the proposed 45m monopole is considered to be the smallest structure capable of meeting coverage and operational objectives. A monopole is a structure that has a small profile and is considered the least visually intrusive design option for a new base station. Furthermore, the pole will remain unpainted (galvanised steel) which over time has been demonstrated to most successfully blend with light backgrounds such as the sky.”</i></p> <p>However, as this is just the NBN infrastructure to provide them with the ability to rent space to Telcos to install their satellite dishes and other associated equipment, which the Council and community will have no say about. The <b>end result will be a monopole with additional infrastructure than state, in the longer term, making it a more significant and unsightly installation. On these grounds alone the submission should be rejected and should they wish to re-submit they should do so with full disclosure of potential expansion of infrastructure that can be located on the tower.</b></p> <p>The Applicant states that the proposed location of the Facility will ... <i>“minimise the visual impact on the immediate and surrounding area”</i> and that... <i>“Whilst the structure may be visible from some aspects, based on the siting the proposed development will not result in adverse impacts on visual amenity in the local area.”</i> And it is further stated that ... <i>“The surrounding area consists predominantly of rural land with low intensity agricultural uses. The built form and typical land uses on adjoining properties and surrounding areas are predominantly single detached dwellings and agricultural facilities on rural lots. Separation between the proposed development location on the subject property and the closest residential dwelling on an adjoining property is approximately 220m to the east. No community sensitive sites have been identified within a 500m radius of the proposed development location on the subject property.”</i></p> <p>However, this is not accurate, the Applicant refers to a zoning map (Figure 7 Page 24) which does not reflect that <b>the land opposite on Maddern South Road, is now rural residential blocks (Chittering Springs Estate) currently developed, and on the market or sold, resulting in residential properties being very close to the Facility and the ultimate owners of these properties will certainly be negatively visually impacted by the Facility.</b> In addition, those</p>	
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	<p>properties in Blue Plains Estate on Maddern South Road and adjoining Leschenaultia Drive and Jacaranda Avenue will be negatively visually impacted.</p> <p>The premise that there is only a single residential property within 100m – 220m tot he East is <b>therefore, grossly and intentionally, misleading in the proposal. The subdivision and rezoning plans would have been well known at the time of this submission, and on these grounds alone the proposal should be denied.</b></p> <p><b>In addition, the proposed location of the Facility on this property and the minimal distance of Maddern South Road (i.e. 77m) appears to provide the NBN the easiest access to power etc. And therefore, represents a ‘lowest cost’ option rather than an option in the best interests of the community.</b></p> <p>In closing, there are a number of serious omissions, or misleading statements in the submission, that require much more scrutiny on the part of the Shire as our representative.</p> <p>Given the primary stated purposed of the Facility is to provide a link to Gingin, whilst purporting to service a very small proportion of an ‘already serviced community’ , there are no grounds to place a Facility of this nature in the proposed location, in close proximity to new, and established rural residential estate(s), when there is a large number of sites available on agricultural land for the NBN to consider to achieve the above link. The proposal to place is next to rural residential areas is simply a cost saving exercise at the expense of those within the immediate area, and should not be considered further.</p> <p>The additional costs that would be imposed on residents to use a more expensive service for the same benefits, should also not be considered lightly by the Shire in considering the benefits of this proposal. Further, the confirmation by Telstra, the largest telco provider in region, that it has no plans to expand its services within the Chittering area in the foreseeable further, whilst stating it will be expanding in Bullsbrook and Gingin should give cause for concern as to the true motives, and subsequent benefits, of positioning a Facility in the proposed location.</p> <p>Notwithstanding the question relating to the location of the Facility near residential properties, the ability to provide a service to a mere 249 premises, is clearly not in the long term interest of the Shire, or the local Community, and requires much more consultation with the NBN before the benefits of this proposal can be properly assessed. In addition, it is understood that there are proposed rural residential developments within 2kms of this proposed NBN site, that would exceed the number of residents/premises proposed to be serviced by this Facility, therefore, it is difficult to consider any argument that there is any benefit to the broader Chittering community.</p> <p>The only obvious benefit for locating the Facility at this proposed site is that</p>	
--	--	--

	<p>it represents a cheaper solution for NBN, a federally funded entity, that is more than able to bear the costs of locating it in an area that does not negatively impact local residents. Thee desire for the NBN to minimise its operational costs, should not under any circumstances be at the expense of local community members.</p> <p>We trust that the Shire will give due consideration to the grave concerns we have raised in relation to this proposal, including the omissions and/or inclusion of misleading information that seriously questions the validity of the stated benefits for the Chittering Community and the impact on the local residents who would be directly impacted by the proposed location.</p>		
<b>Public 8 – OBJECT</b>	<ol style="list-style-type: none"><li>1. Due consideration to future residents (rate payers) of lots not yet sold or occupied on opposing estate!</li><li>2. Possible future opposition causing unrest among these ratepayers.</li><li>3. Other site already proposed by NBN are available! These sites have less opposition and less impact on ratepayers.</li><li>4. Current site owner has expressed plans to develop the current site into residential lots – possible problems ( - wayne wright)</li><li>5. Current site is dual zoned this will require rezoning.</li></ol>		

\*Note: Comments are as per original submission received by the Shire. Submission comments have not been edited unless for the purposes of confidentiality where necessary.

Position 1





Position 2

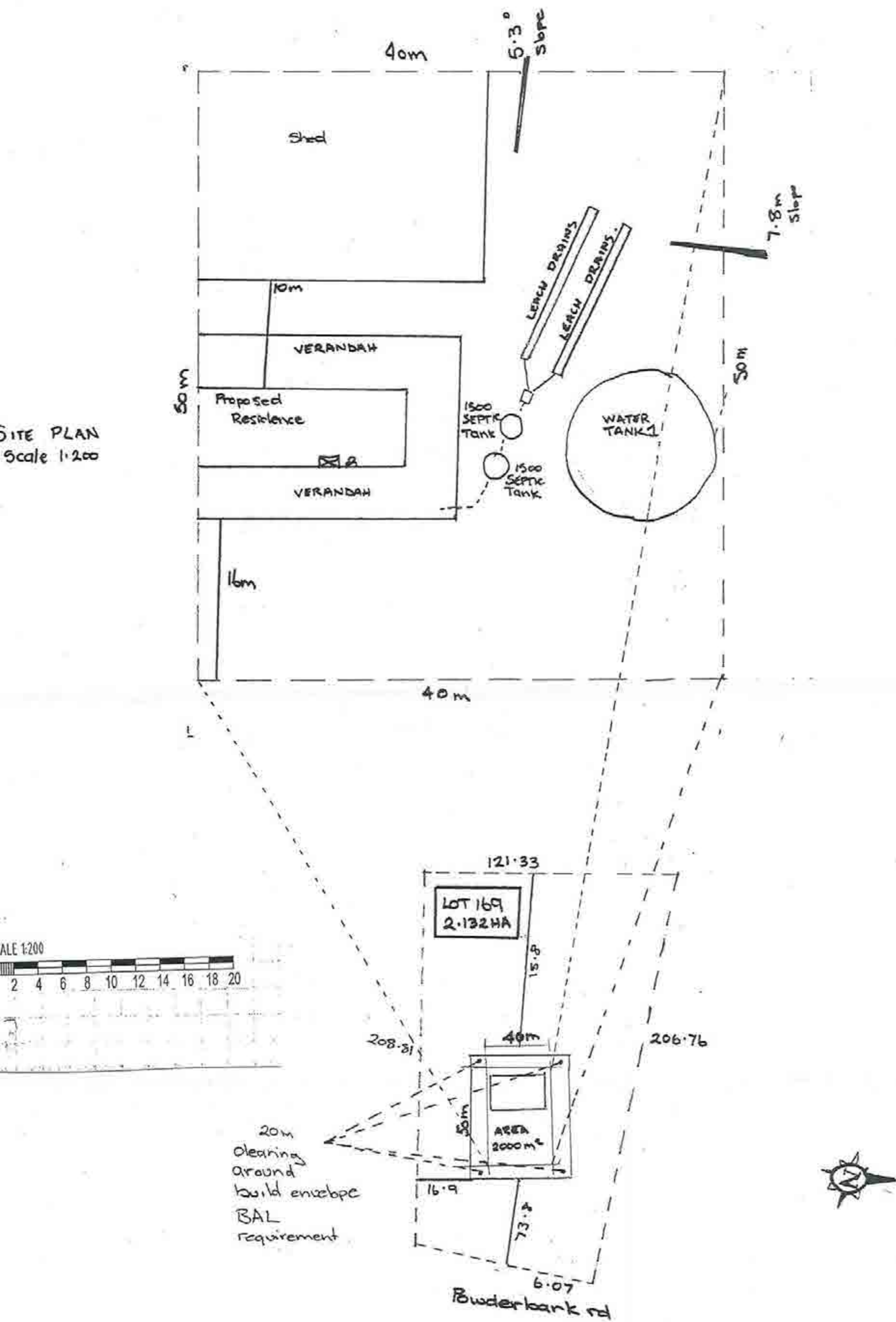


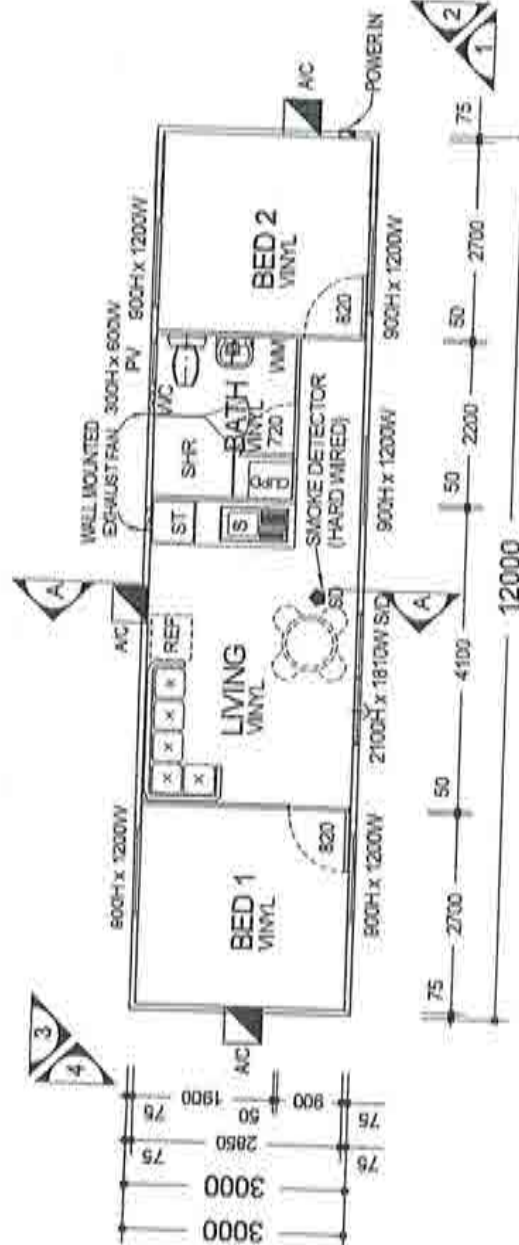
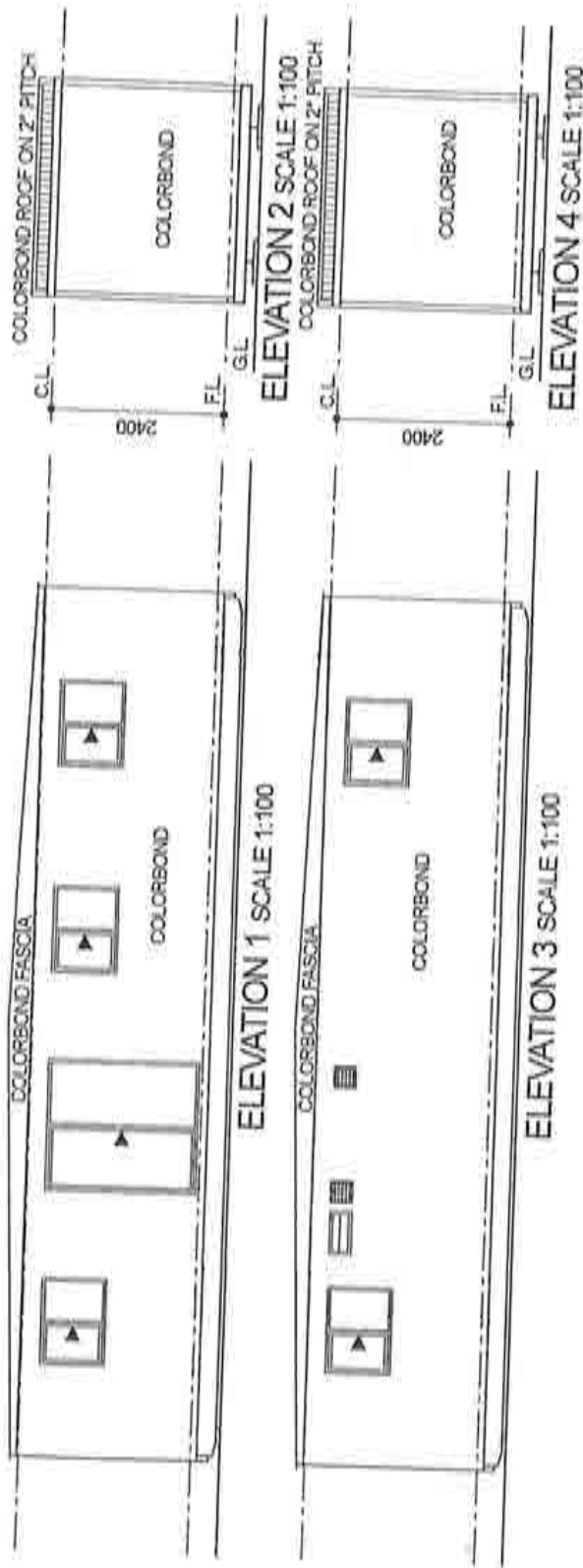
Position 3





SITE PLAN  
Scale 1:200

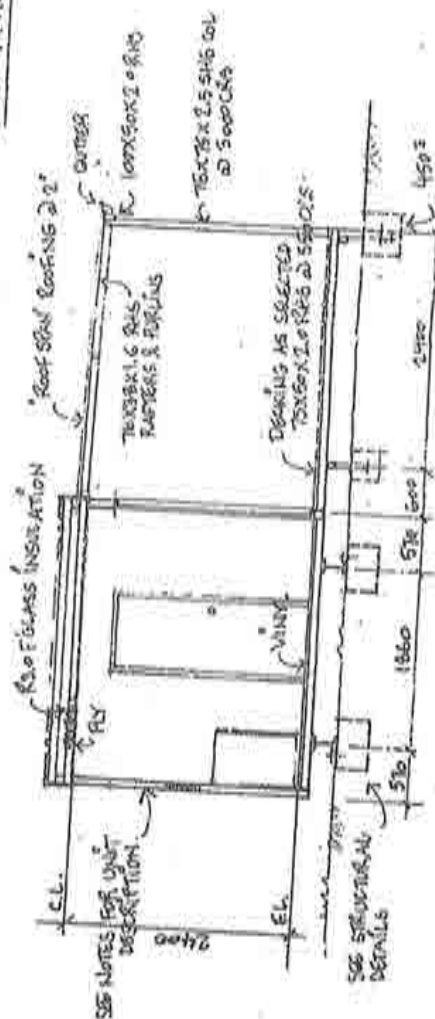
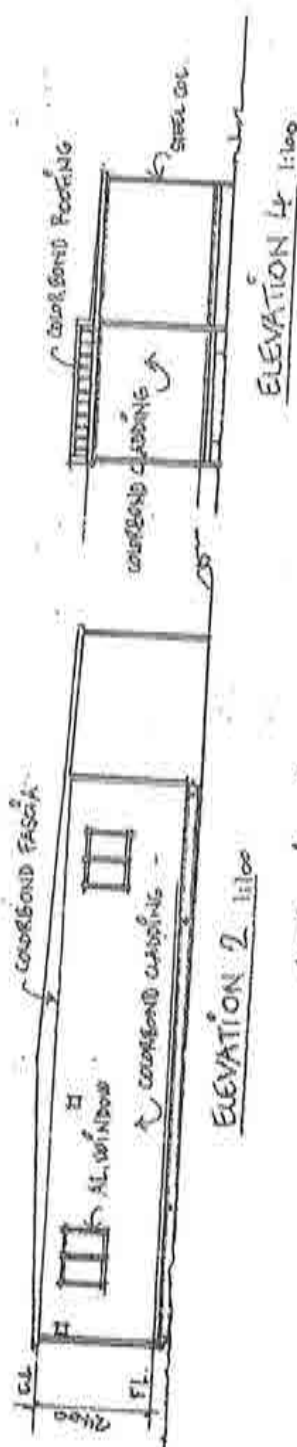
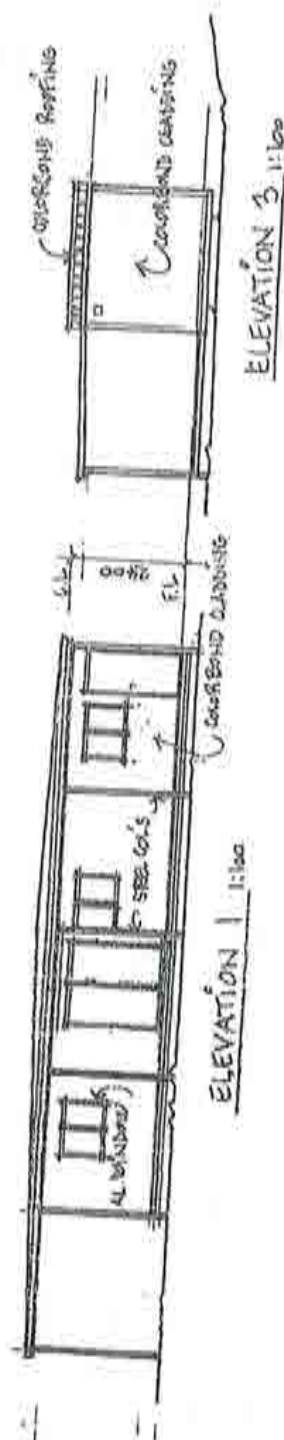




SECTION A-A SCALE 1:100

PROJECT SPECIFICATION FOR  
RELOCATED NEAR NEW CONDITION  
SECOND HAND UNIT

- FLOOR STRUCTURE**  
STEEL SKIDS-250LB31  
FLOOR JOISTS-75x32x1.5 C @ 400 cts  
FLOORING-18mm STRUCTURAL FLOORING + VINYL
- WALL STRUCTURE**  
75 THICK INSULATED COLORBOND PANEL
- ROOF STRUCTURE**  
CEILING JOISTS AND PURLINS-90x45  
ROOF DECKING-H-DECK COLORBOND ROOF  
INSULATION-R4.0 FIBRE BATTS BETWEEN JOISTS  
CEILING-PREFINISHED PLYWOOD CEILING LINING  
WINDOWS  
POWDERCOATED ALUMINUM FRAME



SECTION A-A 150

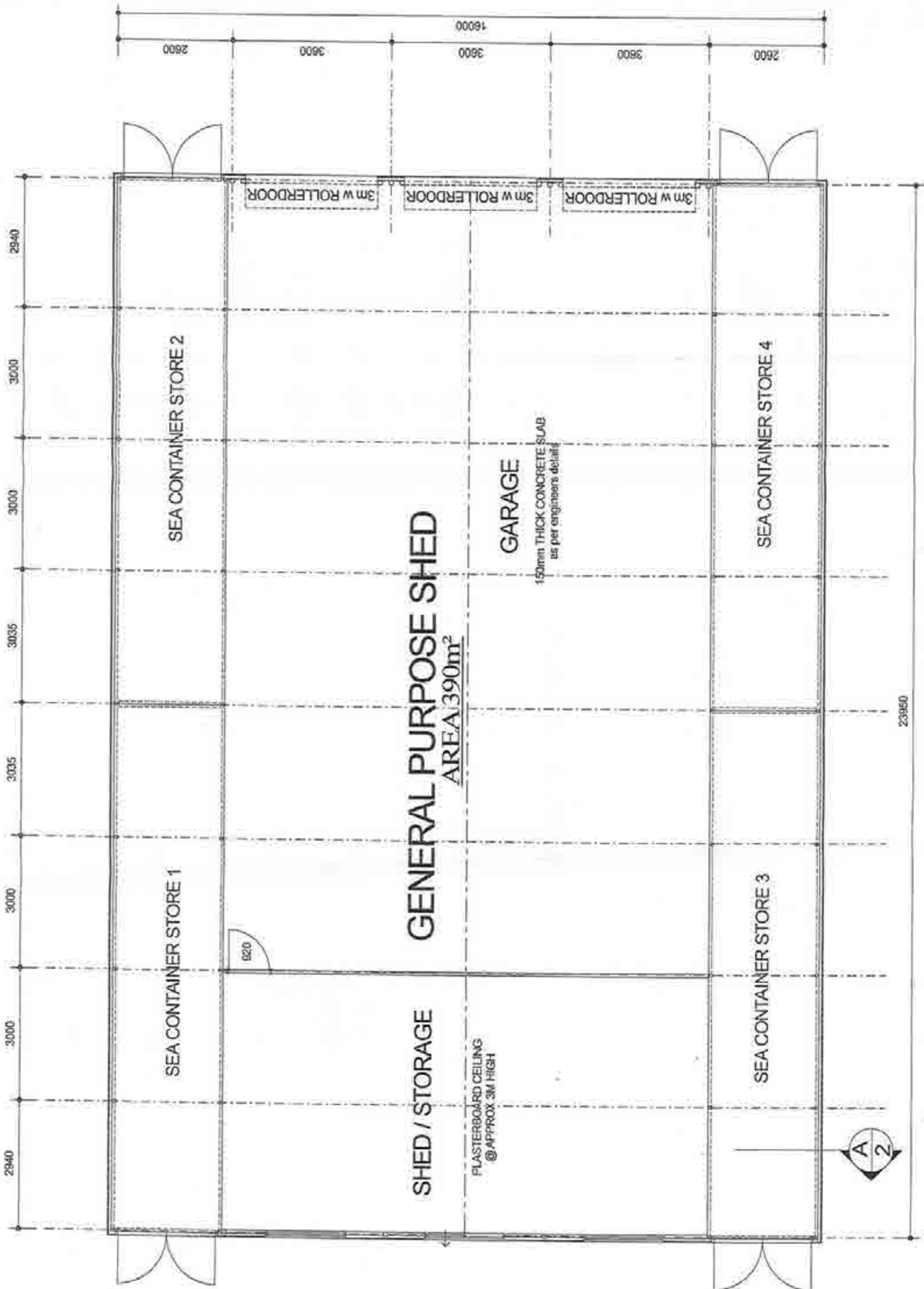
PREFABRICATED UNIT DESCRIPTION

Floor Base: 250 LB ST. x SKID BEAMS  
15 X 21 X 15 C JOISTS @ 400 C/C  
1/2 STRUCTURAL FLOORING + VINYL  
WALLS: 15 THICK BONDED BRICK (CONCRETE + COLOR ENDS  
SHOOTING  
Roof: 20 X 45 CELL JOISTS + TRUSSING - FOLDED INSULATION  
HIP-DECK CLAND ROOF.


~~NOTHING~~  
~~NOTHING~~

286-15 R5F12





JOONDALUP DESIGNS  
Address 845 Muchea South Rd., Muchea.  
Post office Box 97, Muchea, 6501.  
Phone 08 9571 4361

  
JOONDALUP

CLIENT NAME  
Steve & Kylie Briffa -0419921487  
SITE ADDRESS  
LOT 169 POWDERBARK ROAD,  
LOWER CUTTERING

PROPOSED  
GENERAL  
PURPOSE SHED  
Sheet No: 01 OF 2  
Revision: 0

Draw No: 0

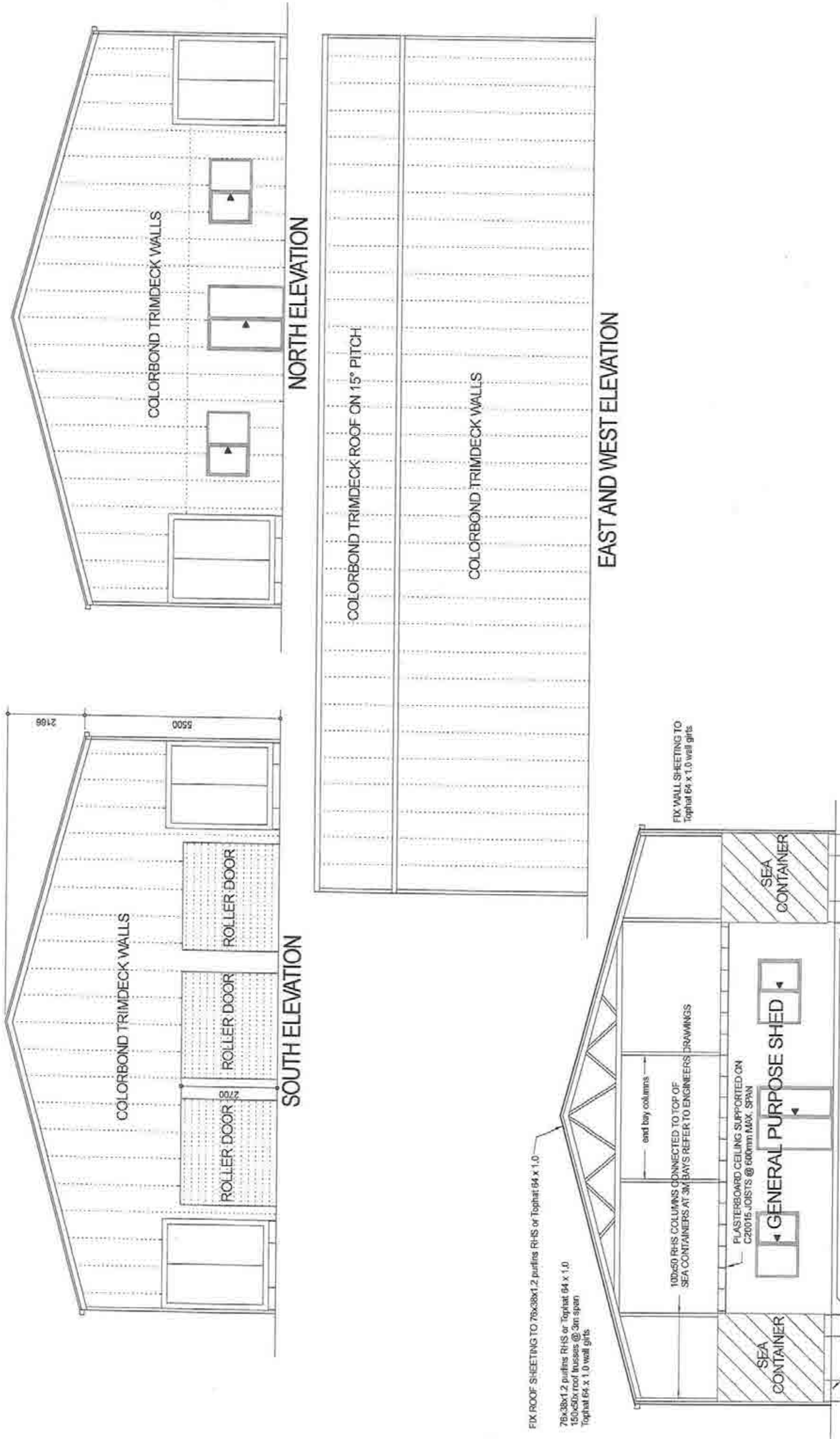
Validation:  
ISSUED FOR APPROVAL

Date Drawn:  
8/11/15

By:  
LA

DRAWING NAME:  
FLOOR PLAN





JOONDALUP DESIGNS  
Address 845 Muchea South Rd, Muchea.  
Post office Box 97, Muchea, 6501.  
Phone 08 9571 4361

JOONDALUP

CLIENT NAME:  
**Steve & Kylie Briffa -0419921487**

SITE ADDRESS:  
**LOT 169 POWDERBARK ROAD,  
LOWER CHITTERING**

Rev No:  
0

Issued For Approval

Date Desc:  
8/1/15

By:  
LA

PROPOSED  
GENERAL  
PURPOSE SHED

DRAWING NAME:  
**ELEVATIONS & SECTIONS**

Sheet No:  
**SD 2 OF 2**

Revision:  
0



# LOTS 1 & 2 TEA TREE ROAD, BINDOON LOCAL STRUCTURE PLAN





Shire of Chittering  
Lots 1 & 2 Tea Tree road, Bindoon



# LOTS 1 & 2 TEA TREE ROAD BINDOON LOCAL STRUCTURE PLAN

LOTS 1 & 2 TEA TREE ROAD, BINDOON  
SHIRE OF CHITTERING

PREPARED FOR  
MAROU PROPERTY DEVELOPMENTS PTY LTD

BY



July 2016

Revision 1.0

**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## CERTIFICATION OF APPROVED STRUCTURE PLAN

This structure plan is prepared under the provisions of the Shire of Chittering Town Planning Scheme No.6.

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

(Date) \_\_\_\_\_

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

\_\_\_\_\_

An officer of the Commission duly authorised by the Commission pursuant to section 16 of the Planning and Development Act 2005 for that purpose, in the presence of:

\_\_\_\_\_ Witness

\_\_\_\_\_ Date

\_\_\_\_\_ Date of Expiry

**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



### TABLE OF AMENDMENTS

Amendment No.	Summary of the Amendment	Amendment Type	Date approved by WAPC

**Shire of Chittering**  
 Lots 1 & 2 Tea Tree road, Bindoon



## EXECUTIVE SUMMARY

### *Purpose*

This Local Structure Plan (LLSP) has been prepared for Lots 1 & 2 Tea Tree Road, Bindoon. The land the subject of this LSP comprises (2) lots located approximately 7 kilometres south-west of the Bindoon townsite and approximately 85 kilometres north-east of Perth. The LLSP area abuts the southern boundary of the Bindoon Development Precinct.

This LLSP provides the planning framework to guide and facilitate the development of 483.9 hectares of land in line with the 'Rural Smallholdings' zone as per the provisions of the Shire of Chittering Town Planning Scheme No. 6 (TPS6).

The LLSP will form part of a future settlement growth area within close proximity to the Bindoon townsite and provide for a transitional land use between 'Agricultural Resource' lots to the south and west and rural residential land use to the north and east.

### *Structure Plan Summary Table*

Item	
Total area covered by the structure plan	483.9 hectares
List of land uses proposed by structure plan - Net Rural Smallholdings <sup>a</sup>	468.26 hectares
Estimated Lot Yield	48
Estimated number of dwellings	48
Estimated population	110
Number of high schools	0
Number of primary schools	0
Estimated retail floor LSPace (if appropriate)	0m <sup>2</sup>
Estimated employment provided (no. of jobs)	0
Number and area of public opens LSPace	
- No Open LSPace Allocation	0 hectares

<sup>a</sup> The 'Net Rural Smallholdings' area excludes all proposed roads and road widening of Tea Tree Road.

**Shire of Chittering**  
 Lots 1 & 2 Tea Tree road, Bindoon



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**Shire of Chittering**

Lots 1 &amp; 2 Tea Tree road, Bindoon



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**Shire of Chittering**  
 Lots 1 & 2 Tea Tree road, Bindoon



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**Shire of Chittering**  
 Lots 1 & 2 Tea Tree road, Bindoon



## PART ONE (IMPLEMENTATION)

### 1.0 STRUCTURE PLAN AREA

The Structure Plan is identified as the *Lots 1 & 2 Tea Tree Road, Structure Plan* (Plan No. 11763-13 Rev .3) (also refer to **Plan 1**).

This Structure Plan shall apply to the land contained within the inner edge of the line denoting the structure plan boundary on the Structure Plan Map.

### 2.0 OPERATION

The date the LLSP comes into effect is the date the LLSP is approved by the Western Australian Planning Commission as set out in the Structure Plan - Certification Page.

### 3.0 STAGING

The LLSP is proposed to be developed in multiple stages in line with market demand. There are no LLSP specific triggers for staging of development. Servicing will be extended with each of the individual stages of development.

### 4.0 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

4.1	Land Use & Permissibility	<p>The LLSP Map outlines the Zones and Reserves applicable within the LLSP Area and these will guide future subdivision and development of the land.</p> <p>Land use permissibility within the LLSP Area shall generally be in accordance with the corresponding Zone under the Shire of Chittering Town Planning Scheme No. 6 (TPS6).</p>
4.2	Residential Density	<ol style="list-style-type: none"> <li>1. Residential densities applicable to the LLSP Area shall be those residential densities shown on the LLSP Map.</li> <li>2. The LLSP shall provide for a 1 dwelling per 'Rural Small Holdings' lot at subdivision approval stage.</li> </ol>

## Shire of Chittering

Lots 1 &amp; 2 Tea Tree road, Bindoon



4.3	Notifications on Title	<p>In reLSpect of applications for the subdivision of land the Shire of Chittering shall recommend to the Western Australian Planning Commission that a condition be imposed on the grant of subdivision approval for a notification to be placed on the Certificate(s) of Title(s) to advise of the following:</p> <ol style="list-style-type: none"> <li>1. Land or lots deemed to be affected by a Bush Fire Hazard as identified in the Bushfire Management Plan contained within Appendix 4.</li> <li>2. Building setbacks and construction standards required to achieve a Bushfire Attack Level 12.5 or lower in accordance with Australian Standards (AS3959-2009): Construction of buildings in bushfire prone areas.</li> </ol>
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Shire of Chittering  
Lots 1 & 2 Tea Tree road, Bindoon



## PART TWO (EXPLANATORY SECTION)

### 1.0 INTRODUCTION

---

#### 1.1 Purpose & Background

This Report has been prepared on behalf of the landowner, Marou Developments Pty Ltd, of Lots 1 & 2 Tea Tree Road, Bindoon (herein referred as the “subject site”). The Report details the proposed Structure Plan (**PLAN 1**), as it relates to the Lots 1 & 2 Tea Tree Road, Bindoon covering an area of 483.9 hectares.

This LSP has been lodged over the subject site in conjunction with the recent scheme amendment No.56 to TPS6 that made application for part of Lot 1 and Lot 2 to alter the zone from ‘Agricultural Resource’ to ‘Rural Smallholding’. This application was initiated at the ordinary meeting of the Council on the 18<sup>th</sup> November 2015.

The proposed Tea Tree Road LSP reflects contemporary planning principles and practice. The LSP has been prepared in accordance with Clause 5.19 of TPS6. This is required under the subject site’s proposed zoning ‘Rural Smallholdings’ as per Clause 5.8.1 of TPS6. The LSP has also been prepared in accordance with the Structure Plan Framework as per the requirements of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

A comprehensive site analysis has been undertaken to inform the preparation of the LSP. As part of the analysis, the subject site was investigated for areas of natural significance or biodiversity (i.e. locations of significant vegetation). These have been identified and retained, and will contribute to the establishment of a sense of place. As discussed further, a mechanism for appropriate ownership and management of these assets is proposed. There has also been an indicative Perth-Darwin Highway reserve located at the eastern boundary in anticipation of this freight corridor. At present the exact location of the Highway has not been finalised, however its location has been acknowledged and considered in the development of this LSP.

The LSP report provides justification for the proposed future subdivision over the subject site in its local and wider context. Once approved, the LSP will provide guidance for rural development of the subject site and establish a context for the consideration and eventual approval of applications for subdivision. The various Tea Tree Road Technical Reports contained in the Appendices should be read in conjunction with this LSP Report.



## 2.0 SITE CONTEXT AND DESCRIPTION

---

### 2.1 Location

The subject site is situated within the locality of Bindoon and is approximately 7 km south west of the Bindoon Town Centre. (see **Figure 1 – Location Plan**). The subject site comprises two parcels, with Lot 2 being situated in the south east corner of Lot 2 and has road frontage to Brennan Road. Lot 1 is the larger of the 2 lots with its major frontage to Tea Tree Road.

The subject site is surrounded on all sides by 'Agricultural Resource' zoned land that is more heavily wooded than the subject site.

There are two areas, one to the north west and one to the south west, both zoned as 'Rural Residential' land that have been significantly developed with smaller rural use lots.

### 2.2 Landownership

The LSP area contains (2) land parcels in ownership of Mikail and Iaroslava Marouchchak. The legal description and area of each land parcel is set out in Table 1 below.

Table 1. Land description and area of lots comprising subject site

Lot	Plan	Volume	Folio	Area (ha)
1	41201	2618	80	433.81
2	41201	2618	81	50.09
<b>TOTAL</b>				<b>483.90</b>

**Figure 2 – Aerial View** shows the cadastral boundaries of the lots that form the LSP area.

### 2.3 Existing Land Use

The subject site has an area of 483.9 hectares and in the past it has been used for grazing with occasional cereal and lupin crops. Most of the land has been cleared for

**Shire of Chittering**  
 Lots 1 & 2 Tea Tree road, Bindoon



agricultural pursuits but there are some stands of remnant vegetation left on the property. The property is currently being used for grazing. Rows of *Tagasaste* have been planted in the past in the central area of the subject site by the landowner as supplementary stock feed.

Figure 2 – Aerial View provides an aerial overview of the subject site and the distinct area of subdivision and development that has occurred in proximity to Ocean Heights Estate.

## 2.4 Surrounding Context

The predominant surrounding land use is rural based, comprising of agricultural activities and rural residential living (refer to **Figure 2**). To the east of the subject land (excluding neighbouring Lot 4) many of the original rural properties in the area have been subdivided into predominantly 2.0 – 2.5 hectare lots supporting rural-residential living, with some larger 3 - 4 hectare lots within those developments. The neighbouring land uses to the south, north, east and west are predominantly large agricultural lots or undeveloped land containing remnant vegetation.

Lot 101 to the west has been recently rezoned to 'Rural Conservation' with approval for cluster rural residential development. On the opposite side of Tea Tree Road to the north is the new Parkwood Springs Estate which has been approved and subdivided into 4 hectare rural residential lots.

The subject site is strategically located to provide a transitional land use between 'Rural Conservation' and 'Agricultural Resource' land and the rural-residential living precincts to the east.

## 2.5 Opportunities and Constraints

A Land Capability Assessment (**Appendix 1**) was undertaken by Landform Research in May 2000. The assessment was based on field analysis on 3 May 2000, 48 soil auger holes, geological and hydrological mapping, knowledge of the area, aerial photography interpretation and published information.

Opportunities and constraints have been identified from the Land Capability Assessment. Opportunity exists to create a unique rural smallholdings development which is site specific and relevant to its local context. The following are some of the opportunities identified for the subject land:

### Opportunities

- Proximity to Bindoon Townsite - The subject land is only 7 kilometres south-west of Bindoon townsite and all its services and amenities.
- Availability of Groundwater - The white sand filled valleys contain abundant accessible groundwater of high quality with the greatest volumes of groundwater

## Shire of Chittering

Lots 1 &amp; 2 Tea Tree road, Bindoon



being in the central east valley. The landowner currently has a licensed bore approved by Department of Water.

- Vineyard - Soils have potential for cottage and perennial horticulture, particularly on the eastern side where there is good sources of groundwater. The landowner has obtained a license from Department of Water to extract groundwater for the proposed vineyard in the north-east of the property however the exact location of this vineyard is dependent on the location of the Perth-Darwin Highway.
- Soils high in phoLSPhorous retention - The presence of yellow sand with good phoLSPhorous retention over most of the site is suitable for on-site wastewater treatment.
- Ridges Views - The form of ridges provide visual screening as well as aesthetical values such as views and cooling breezes in summer.

#### Constraints

- There are limited land and environmental constraints for the site which would preclude development of the site for rural smallholding land use.
- Soak/Dam - There is a small soak/dam near the eastern boundary which will limit development and setback of residences from the wetland area, for instance, nominal Department of Environment and Conservation 100m buffer for effluent diLSPosal from soak/dam wetland.
- The exact future alignment of the Perth-Darwin Highway is not yet know and as such currently only the indicative alignment dictates the eastern boundary of the proposed change of zone over the subject site.

The main opportunities and constraints for the site are shown in **Appendix 2** Opportunities and Constraints plan.

## 2.6 Topography

The land varies from two main ridges at just over 210m AHD in the south east corner and 205m AHD in the central west dropping to 175m in a gentle valley in the south western corner and 163m on the central eastern boundary.

## 2.7 Geology and Soils

Quartz sands cover the majority of the property with leaching of sand to white sand occurring in the valleys. The main soil types found on the subject land are Leached Sand over Gravel, Leached White Sand, Yellow Sand and Ferricrete and Gravel, which are typical for its position in the landscape. These sands are described as free draining calcareous sand of high permeability.

**Shire of Chittering**

Lots 1 &amp; 2 Tea Tree road, Bindoon



(Above) Typical view of white sands found on the property

## 2.8 *Acid Sulfate Soils*

There is no risk of exposure to Acid Sulphate soils in this area.

## 2.9 *Hydrology*

### Groundwater

Groundwater drains from each catchment, which is defined by the ridges found on the subject land, with the greatest volume of groundwater in the central east valley. The landowner has stated that the groundwater bore on the property is at a depth of around 30 metres.

### Surface Water

Surface drainage is minimal due to the permeability of the soil. The only natural expression of surface water within the development site is a small flow emanating from the soak/dam in the central east. The direction of flow is east and surface drainage ultimately enters into Lake Chittering about 3 kilometres to the east of the subject land. There is no evidence of surface salinity and the Land Capability Assessment concluded that it is unlikely that salinity will be an issue in the future even though the land has been excessively cleared.

### Wetlands

There are no natural wetlands or sumplands within the subject site. As mentioned above, there is a soak or dam in the eastern portion of the development site which

Shire of Chittering  
Lots 1 & 2 Tea Tree road, Bindoon



feeds into a series of soaks and a dampland on the neighbouring eastern property. For the subject land, infiltration at source is the dominant hydrological characteristic in the pre-development catchment.

## 2.10 Vegetation & Flora

The subject land has been predominantly cleared apart from scattered remnant stands of trees. The main vegetation on the site can be described as tree remnants of Eucalyptus woodlands. Some of the gravel ridges have largely been left as remnant vegetation, but have been subjected to grazing to the extent that the vegetation diversity of LSPecies is limited both in numbers and density in most areas. The leached white sands in the west and south have been allowed to regenerate with there being evidence of some native LSPecies repopulating some areas of the property.

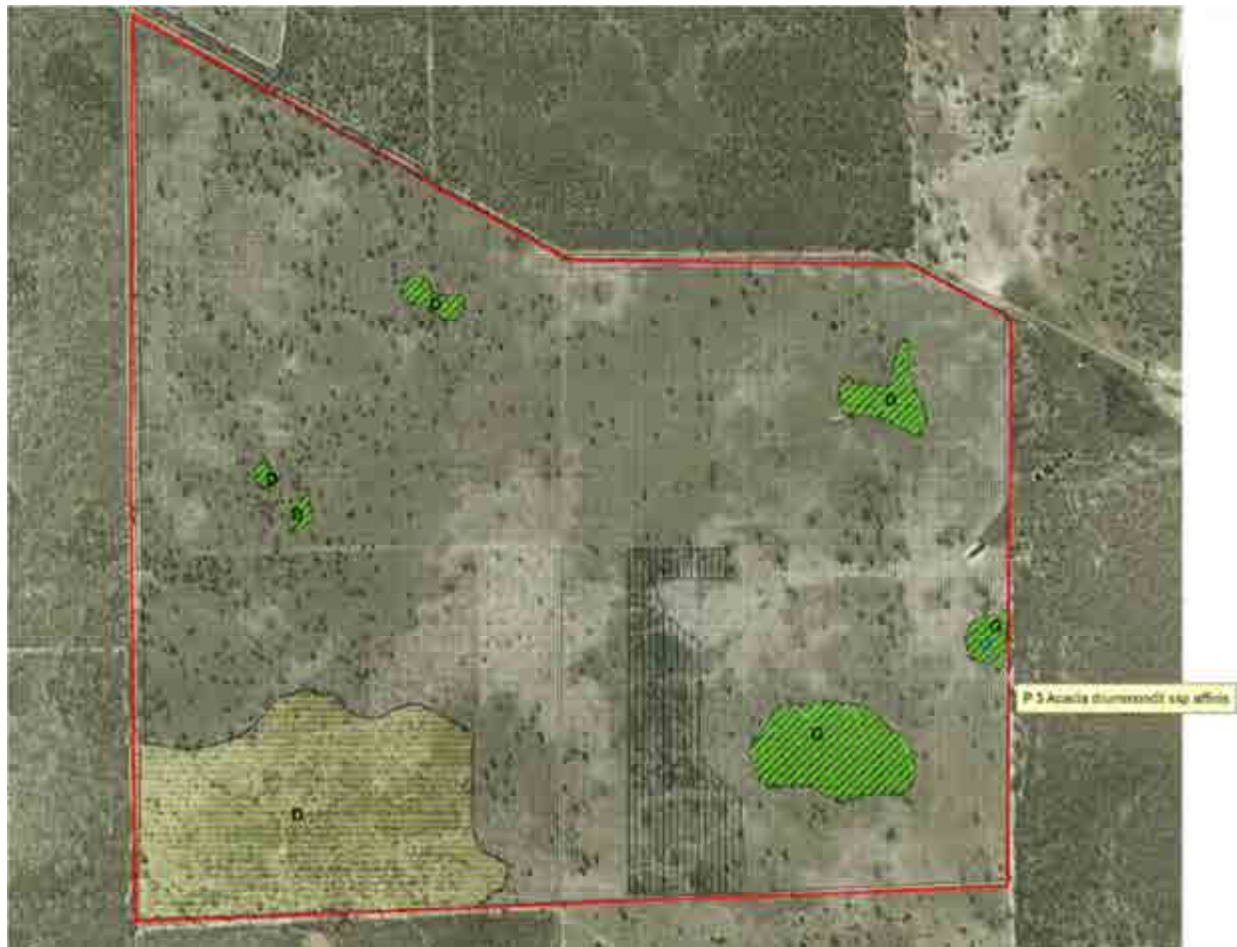
Landform Research in its Land Capability Assessment report made these comments on flora and vegetation on the property

*"...Tagasaste has been planted in the central south on leached and yellow sands. The main vegetation on the site are tree remnants of Eucalypt woodlands. The following partial community types are represented by scattered Eucalypts and taller shrubs: Jarrah – Marri (Eucalyptus marginata, E. calophylla) Woodland occurs on the ferricrete/gravel and duricrust, grading into Jarrah Woodland where duricrust becomes significant and the soil more shallower. Marri Woodland was the dominant original vegetation on the yellow sand but changes to Pricklebark (E. tottiana) Woodland and remnant Banksia Woodland as the sand becomes more leached to the south west. Juncas pallidus occurs on wet pasture areas with the introduced Isolepis prolifera associated with the wet area around the soak in the central east. No evidence of dieback disease was noted."* [page 4].







The 2011 LSPring Flora and Vegetation Survey (Bio Diverse Solutions, 2012) (**Appendix 3**) identified the presence of Priority 3 LSPecies (*Acacia drummondii* sLSP *affinis*) in the eastern portion of the development site.

The Survey recommends that development is restricted in this area and the remnant vegetation area containing Priority 3 LSPecies *Acacia drummondii* sLSP *affinis* is fenced to exclude stock in order to maintain habitat for the flora LSPecies. As part of this LSP no development is proposed for the eastern portion of the development site and therefore the P3 flora LSPecies in this area will be retained and fenced off within a large lifestyle lot.

Shire of Chittering  
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### Legend

- |  |   |
|--|---|
|  P 3 <i>Acacia drummondii</i> ssp affinis |  Tagasaste plantation  |
|  Jarrah - Marri JmCc                      |  Cleared Paddock Areas |
|  Mosaic Jarrah - Marri - Banksia JmCcBa   |  Subject area          |
| G - Good Condition   | D - Degraded Condition  |

Location of Priority 3 Flora *Acacia drummondii* sLSP affinis) in the eastern portion of the subject site to be fenced and retained.



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(Above) View of artificial re-growth *Tagasaste* rows near the central part of the site used to supplement livestock feed

(Below) Typical parkland cleared areas of the subject site with remnant eucalyptus trees



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## 2.11 Fauna

The only remnant vegetation on the subject site is the scattered trees and native vegetation pockets on the ridges. Due to the clearing of the land there is limited natural habitat for fauna. The trees on the development site potentially provide habitat for birds, however, no Carnaby Black Cockatoos were observed during site inspections.

Wherever possible, significant healthy trees will be preserved as part of development of the site. Kangaroos are frequent and reptiles are likely to be found on the subject site, including skinks, goannas and snakes that are local to the area. Feral animals such as rabbits and foxes are also likely to be found on the subject site.

Plantings and revegetation can form linkages between remnant pockets of vegetation and to the more substantial remnant vegetation on surrounding neighbouring properties. It is likely that the development subject site attracts fauna that migrates between the surrounding remnant vegetated areas that have been assessed as important biodiversity areas under the Shire's Biodiversity Strategy.

## 2.12 Indigenous & European Heritage

### Indigenous Heritage

A search of the Department of Indigenous Affairs (DIA) Aboriginal Heritage Inquiry System indicates there are no registered Aboriginal Heritage sites within the development site.

It is important to note that the database of heritage sites held by the DIA is not comprehensive and there exists the potential for unknown sites of Indigenous heritage significance to be located inside or within close proximity to the subject land.

Archaeological monitoring is recommended for any eventual excavation works as part of subdivision and development. The process for protecting Indigenous heritage sites and considering proposals that may impact a known site is set out under the *Aboriginal Heritage Act 1972*. The Act protects all Aboriginal sites in WA whether they are known to the DIA or not.

### European Heritage

There are no places or sites of cultural significance within the subject site area under the Shire of Chittering Municipal Heritage Inventory and State Heritage Register.

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Lots 1 & 2 Tea Tree road, Bindoon



## 3.0 KEY PLANNING FRAMEWORK

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### STATE & REGIONAL PLANNING

#### 3.1 *SPP.2.5 'Agricultural and Rural Land Use Planning'*

For lot sizes in Rural Smallholdings, LSPP 2.5 sets out a range of 4ha – 40ha in size. The Policy recommends that a Rural Smallholding zone focus on providing rural living and rural lifestyle land use. LSPP 2.5 generally requires proposals for Rural Smallholdings to be consistent with Local Planning Strategies and located in areas where bushfire risk is not extreme and there is no significant topography, environment, or servicing constraints. The subject site is well suited for Rural Smallholdings zone and this will be further discussed in the report.

#### 3.2 *SPP.5.4 'Road and Rail Transport Noise and Freight Considerations in Land Use Planning'*

This Policy seeks to protect the community from unreasonable levels of transport noise by establishing a standardised set of criteria to be used in the assessment of developments close to transport corridors and to protect freight corridors from incompatible urban encroachment.

In relation to this LSP and future subdivision, the 5 – 6 ha lots proposed for development will be set on the western side of the subject site. As per clause 5.6 of SPP 5.4 this is an appropriate form of noise mitigation to separate noise-sensitive land uses more than 900m from the potential noise generated by the Perth-Darwin Highway.

Any noise sensitive buildings set on the large lifestyle lot will also require a set back from the Highway of no less than a minimum 300m limit. It is anticipated that noise studies will only be required as part of a planning application for noise sensitive buildings constructed closer to the Perth-Darwin Highway than a 300m offset or in the event of future structure planning on the large lifestyle lot.

#### 3.3 *Shire of Chittering Local Planning Strategy 2004*

The Shire of Chittering Local Planning Strategy 2004 (LPS) was endorsed by the Shire of Chittering and Western Australian Planning Commission as a planning instrument to guide land uses and subsequent development within the Shire for the period 2001 – 2015.

The LPS identifies the subject site as suitable for 'Rural Retreat – Priority Development Area' development (with minimum lot size of 10 hectares). However, as per the proposed scheme amendment No. 56 to TPS6 the subject site is shown to be better suited for 'Rural Smallholdings'.

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### 3.4 *Shire of Chittering Local Planning Strategy Update 2010*

The Shire of Chittering Draft Local Planning Strategy Update 2010 proposes modifications to the LSP 2004. It is noted that Lots 1 & 2 Tea Tree road are retained under the draft Local Planning Strategy Update 2010 as 'Rural Retreat'. In order for this LSP to proceed the draft LPS will need to be amended to reflect scheme amendment No.56 that proposes the zone be altered to 'Rural Smallholdings'.

## LOCAL PLANNING

### 3.5 *Shire of Chittering Town Planning Scheme No.6*

The subject land is currently zoned 'Agricultural Resource' under TPS6. A change of zone of the subject land from 'Agricultural Resource' to 'Rural Smallholdings' will accommodate the proposed LSP. Scheme amendment No.56 applied for this change and was initiated by the Council at the Ordinary Meeting on the 18<sup>th</sup> November 2015.

This LSP is required as a prerequisite to subdivision and/or development in order to provide an appropriate planning framework to guide decision making regarding subdivision and/or development approval.

### 3.6 *Local Planning Policy No.21- Fire Management*

This policy applies to all land zoned Rural Residential, Rural Retreat and Rural Smallholdings under TPS6. A Bushfire Management Plan has been prepared in accordance with the Policy for this LSP and is provided for in **Appendix 4**.

### 3.7 *Local Planning Policy No.32 – Development Plans*

For development of the subject site, the policy requires preparation of an Outline Development Plan (or Structure Plan) which considers the proposed subdivision of land and assembly of elements including road layout, configuration of proposed lots, provision of infrastructure, public open space and fire risk assessment/management.

Under the policy, a minimum lot size of 5 hectares is applied to the 'Rural Smallholdings' zone. This LSP document demonstrates how the subject site could be subdivided/developed under a 'Rural Smallholdings' zone.

Shire of Chittering  
Lots 1 & 2 Tea Tree road, Bindoon



## 4.0 LOCAL STRUCTURE PLAN

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### 4.1 *LSP Rural Smallholdings Design Rationale*

#### Vegetation Clearing

The subject site has historically been cleared for grazing and does not form part of environmentally sensitive areas as identified in the Shire of Chittering Local Biodiversity Strategy.

#### Suitability of Rural Smallholdings Lot Size

The subject site is generally within a transitional area between rural residential development to the east and agricultural lots to the west. The proposed 'Rural Smallholdings' lots would provide opportunity for minimum lot size of 5 hectares, which would not be out of keeping with the character of the area. To the east of the development site there are existing and planned rural residential developments.

Parkwood Springs Estate to the north is zoned 'Rural Residential' with lot sizes of 4 hectares. The neighbouring land to the west (Lot 101 Tea Tree road) is zoned 'Rural Conservation' with a WAPC conditional approval for (cluster subdivision, providing for lot sizes of 5000m<sup>2</sup>).

Market sounding indicates that the community prefers lot sizes in this locality to be generally around 1 – 5 hectares. For the majority, larger lot sizes above 5 hectares are not preferable, due to issues of land maintenance.

Further, lot sizes around 4 – 5 hectares are sufficient to provide a rural lifestyle and amenity. From a perspective of landowner maintenance (i.e. sustainable land management practice), a 4 - 5 hectare lot size (i.e. generally the size of a primary school site) is reasonably manageable, for inexperienced prospective landowners seeking a *tree change*, or those wishing to downsize.

Generally speaking larger lot sizes (i.e. 10 hectares or greater) attracts less market and community demand. Accordingly, the Proponent requests the 'Small Ruralholdings' lots in lieu of a 'Rural Retreat' sized lots, to create opportunity to provide a more appropriate lot product to meet community demand and expectations.

#### Land Supply and Population Growth

As per the Shire of Chittering *Strategic Community Plan 2012-2022* the population of the Shire is predicted to double by 2026. Added to this will be a significant increase in the range of the 35-69 years of age cohort. This will increase demand for a variety housing that will allow tree change, low land maintenance lifestyle options. The *Strategic Community Plan* acknowledges that future lifestyle choice for the increased population

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will require an increased availability of varied lot sizes to meet the needs of the community now and into the long term.

Added pressure is presumed to be generated on the local land availability with the development of the Perth-Darwin Highway and the increased employment opportunities generated by the developing Muchea Employment Node.

#### Perth-Darwin Highway

The Perth-Darwin Highway is expected to be completed in approximately 2019. With the creation of this new bypass opportunities will arise in the form of improved access to the subject site and added points of egress in the event of emergency evacuation due to bushfire. There is also the added connectivity to the Bindoon Townsite the future Muchea Employment area and the reduced travel time into the Perth metropolitan area.

At the time of incorporation of the Perth-Darwin Highway alignment into the scheme amendment document (February 2016) the exact alignment had not been finalised. All land within the proposed road reserve and to the east of the Perth-Darwin Highway alignment will not be intended to change zone under Scheme Amendment No. 56. This is to acknowledge that land on the eastern side of the proposed highway will not be viable for further intensification of development.

## 4.2 Local Planning Strategy 2004 (LPS)

The Shire of Chittering LPS identifies the subject site as future 'Rural Retreat', however, the subject site falls outside designated Rural Retreat Precincts as per [Figure 8 in the LPS] (as shown in **Figure 3**).

The LPS identifies Small Ruralholding Precincts to be located further away from Bindoon townsite as per [Figure 7 in the LPS] (as shown in **Figure 4**). It is considered that the subject site has merit in providing 'Rural Smallholdings' lots, in relative proximity to Bindoon townsite.

The Shire's LPS identifies Rural Residential Precincts as per [Figure 6 in the LPS] (refer to **Figure 5**). The subject site falls within a portion of the Chittering Heights Estate/Odelon Estate Precinct with the balance of the subject site abutting this Precinct and the Country Club Estate Precinct to the north-east.

The proposed LSP over the subject site provides a suitable transition between the rural residential to the east and larger agricultural lots to the west (including the western neighbouring 'Rural Conservation' lot).

## 4.3 Other Considerations

The objectives of the 'Rural Smallholdings' zone are set out in Clause 4.2.4 under the Shire of Chittering TPS 6, which states:



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*"To preserve productive land suitable for intensive horticulture and other compatible productive rural uses in a sustainable manner.*

*To protect the landform and landscape values of the district against despoliation and land degradation.*

*To provide lots with a minimum size of 5ha."*

This LSP demonstrates the suitability of the subject site to meet the objectives of the 'Rural Smallholdings' zone, in that:

- (i) The proposed lifestyle lot, on the eastern side of the subject site, is site responsive and takes advantage of the good agricultural soils and groundwater supply on this side of the property, for proposed horticultural use (i.e. vineyard with potential tourist use).
- (ii) 'Rural Smallholding' lifestyle lots (i.e. 5 hectares in size) respond to community demand and expectations. The lots provide opportunity for prospective landowners to plant trees and vegetation (or manage re-growth of areas within the lot), as an overall lot size of 5 hectares is not considered too large an area for inexperienced landowners to manage.
- (iii) Providing an attractive and interesting rural development for people to live in, particularly with the possible development of a vineyard on the larger eastern lot (to be retained by the landowner) with future tourist accommodation and function/reception overlooking an artificial lake (re-contouring/location of the existing soak/dam) to create a sense of community and identity.
- (v) The proposed 'Rural Smallholdings' lots are considered appropriate given that the majority of the subject site has already been historically cleared for grazing and there are no significant biodiversity areas within the subject site. Neither would the proposal require extensive and significant clearing of existing vegetation for building envelopes as the site has already been cleared and 5 hectare lot sizes allow areas outside of the nominated building envelope (i.e. 3,000m<sup>2</sup>) to potentially re-grow, subject to bushfire management.
- (vi) Smaller rural lot sizes work better on cleared land creating opportunities for rehabilitation and reduced risks associated with bush fires, compared with smaller lots in more densely vegetated areas.

#### 4.4 *Rural Densities and Yield*

The LSP provides for approximately 48 Lots with a large lifestyle lot on the eastern side of the subject site. The development site could accommodate an ultimate population of approximately 130 people.

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The 'Rural Smallholdings' lots provide an opportunity for smaller lot sizes responsive to the site's location. The lots provide opportunities for lifestyle choice lots, in a rural setting. Table 2 provides an estimate of the lots sizes applicable to the design of this LSP

As per Clause 5.7 of TPS6 only one dwelling per lot is permitted in the designated building envelope. The Local Government may permit ancillary accommodation providing it is located within the building envelope.

Table 2. Estimate of the residential dwelling yield of the LSP

RESIDENTIAL LOT SIZE	DENSITY	YIELD	HOUSING TYPES
5 – 6ha	Rural Smallholdings	47	Single Dwellings
>10ha	Rural Smallholdings	1	Single Dwellings
<b>LSP Estimated Potential Dwelling Yield</b>		<b>48</b>	

#### 4.5 Structure Plan Land Uses

The proposed land uses for the 'Rural Smallholdings' zone as set out in TPS6 will guide the permissible uses set out in the LSP over the subject site. Following is a list of the permissible uses that will be allowed in the LSP area:

Table 3. Permissible land uses in the LSP

Use Class	Permissibility with in the Rural Smallholdings zone
Agriculture - Intensive	A
Ancillary Accommodation	D
Animal Establishment	A
Aquaculture	A
Arts & Crafts Centre	A
Bed and Breakfast	D
Civic Use	D
Community Purpose	D
Family Daycare	D
Farmstay	A
Home Business	P
Industry - Cottage	D
Industry - Rural	A
Public Utility	D
Reception Centre	A
Residential Building	D
Rural Pursuit	D
Single House	P

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Stable	D
Telecommunications Infrastructure	A
Wayside Stall	D

Note 1 - "permissibility of uses to be included in the scheme by amendment when land is zoned for this purpose"

'P' means the use is permitted in the Scheme providing the use complies with the relevant development standards and requirements of the Scheme.

'D' means the use is not permitted unless the Local Government has exercised its discretion by granting Planning Approval.

'A' means that the use is not permitted unless the Local Government has exercised its discretion by granting Planning Approval after giving special notice in accordance with clause 9.4 of TPS6.

#### 4.6 *Integration with Surrounding Land Uses*

The LSP has been designed to connect into existing and proposed development on neighbouring landholdings. The strategic location of the subject site allows for a transition of lots sizes from the 'Agricultural Resource' and 'Rural Conservation' land and the smaller rural-residential lots to the east.

The proposed 'Rural Smallholdings' lots provides an opportunity for minimum lot size of 5 hectares, which is not out of keeping with the character of the area. Parkwood Springs Estate to the north and is zoned 'Rural Residential' with lot sizes of 4 hectares. The neighbouring land to the west (Lot 101 Tea Tree Road) is zoned 'Rural Conservation' with a WAPC conditional approval for (cluster subdivision, providing for lot sizes of 5000m<sup>2</sup>).

The subject site is in a unique location between pockets of environmentally sensitive areas as identified in the Shire of Chittering Local Biodiversity Strategy. In particular, the subject site is surrounded by Indicative High Conservation Value Areas (IHCVA) as shown in **Figure 7** in proximity to the subject site. 'Rural Smallholding' lots provide opportunity for proLSPective landowners to plant trees and vegetation (or manage re-growth of areas within the lot), as an overall lot size of 5 hectares is not considered too large an area for inexperienced landowners to manage. This ability to manage and reinstate vegetation on the lots will assist in reintegrating the subject site with its surrounding landscape.

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Lots 1 & 2 Tea Tree road, Bindoon



## 5.0 SUSTAINABLE DESIGN

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### 5.1 Water Re-Use and Storage

All lots within the LSP will comply with Clause 5.8.5 of TPS6 in terms of water storage and retention on site, the details regarding the rainwater retention and the size of the tank will be discussed in further detail. In addition to this as per Clause 5.8.12:

*All buildings intended for residential use must include a water re-use/recycling system/s (such as grey water) that is to be installed to the satisfaction of Council and the appropriate State government environmental agencies.*

### 5.2 Land Management and Vegetation Protection

As per Clause 5.8.6 of TPS6 the following provision are made in this LSP for management vegetation and water resources with the subject site:

- All earthworks and construction of dwellings will be conducted in a way that will minimise the disturbance of existing vegetation, minimise soil tillage and where required apply stormwater management practices to the satisfaction of the Council.
- Landowners will maintain the land, watercourses or drainage swales in a manner that will not degrade the land or vegetation on the subject site. Buffers will be applied to limit stock access to these areas to minimise degradation.
- Where required by Council remedial works including replanting and revegetation will be conducted for the purpose of environmental protection. This may include enhancing the rural amenity by requiring the planting of understorey trees, or groups of trees, in areas deficient of vegetation. This will be assessed as part of any planning approvals within the LSP.
- No clearing is permitted, without planning consent, within areas of vegetation protection or revegetation as depicted on the LSP – unless those trees are dead, diseased or present a danger to property.

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## 6.0 MOVEMENT NETWORK

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### 6.1 Current Road Network

#### Site Accessibility & upgrading of Tea Tree Road

The subject site is accessible via Tea Tree Road, which has been sealed up to Parkwood Springs Estate providing bitumen access to that development. Further west of Parkwood Springs Estate Tea Tree Road is trafficable but constructed gravel. Brennan Road along the western boundary of the subject site is also trafficable gravel road.

The 'Rural Smallholdings' subdivision will require the upgrading (to bitumen standard) of Tea Tree Road along the frontage of the subject site. Brennan Road potentially can remain as a gravel trafficable road providing a secondary access point to the subject site. The primary access to the subject site would be Tea Tree Road.

Part of the upgrading of Tea Tree Road will require extension of the bitumen seal from Parkwood Springs Estate to the north-east corner of the subject site. Of particular significance will be the need to upgrade the drainage crossing of the natural surface drainage line on the northern side of Tea Tree Road to the southern wetland area in neighbouring Lot 4 to the east. At present the water flow across Tea Tree Road is uncontrolled and creates a water hazard and erosion issue.



Natural surface water drainage across Tea Tree Road opposite wetland area in Lot 4 – image taken in summer

Upgrading of the road by the developer will necessitate installation of a suitable culvert to allow the natural surface drainage to pass under Tea Tree Road to the wetland within Lot 4.

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Upgrade to Tea Tree Road as part of Parkwood Springs Estate development

## 6.2 *Proposed Movement Network - Roads*

The design of the LSP over the subject site will see a loop road constructed with two intersections terminating at Tea Tree Road. The proposed road width is 30m to allow for large vehicles to pass easily. This loop road is proposed for the western side of the subject site with no other roads proposed for the LSP.



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## 7.0 LOCAL WATER MANAGEMENT

### 7.1 *Groundwater*

Groundwater drains from each catchment, which is defined by the ridges found on the subject land, with the greatest volume of groundwater in the central east valley. The landowner has stated that the groundwater bore on the property is at a depth of around 30 metres.

### 7.2 *Surface water*

Surface drainage is minimal due to the permeability of the soil. The only natural expression of surface water within the development site is a small flow emanating from the soak/dam in the central east. The direction of flow is east and surface drainage ultimately enters into Lake Chittering about 3 kilometres to the east of the subject land. There is no evidence of surface salinity and the Land Capability Assessment concluded that it is unlikely that salinity will be an issue in the future even though the land has been excessively cleared.

### 7.3 *Wetlands*

There are no natural wetlands or sump lands within the subject site. As mentioned above, there is a soak or dam in the eastern portion of the development site which feeds into a series of soaks and a dampland on the neighbouring eastern property. For the subject land, infiltration at source is the dominant hydrological characteristic in the pre-development catchment.

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## 8.0 BUSHFIRE MANAGEMENT PLAN

A Bushfire Hazard Assessment (BHA) has been undertaken to inform the proposed Local Scheme Amendment No. 56 and the LSP design and recommends appropriate bushfire management response and measures. The Bushfire Management Plan was reviewed to reflect new legislation and updated in June 2016.

Overall, the Bushfire Management Plan (**Appendix 4**) including BHA categorises the subject site as having an 'Extreme - Moderate' Bushfire Hazard level. The Bushfire Management Plan recommends a number of fire management measures be undertaken to address the risk of bushfire to property and persons within and adjacent to the ODP area. The risk of bushfire is to be generally managed in terms of implementation of the following:

- A detailed Bushfire Management Plan (BMP) being prepared and endorsed at the subdivision stage. The subdivision will comply with the bushfire protection criteria Acceptable Solutions as per the newly released Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015);
- Ensure that dwellings are built to BAL/AS3959-2009 Building Standards if 100m setback cannot be achieved within their property from Woodland Type B;
- Section 70A notifications on title advising prospective residents in areas which are affected by the Bushfire Management Plan;
- Identification and maintenance of APZ's (i.e. low fuel loading) of 20 metres of any habitable building in areas adjacent to or within proximity to 'extreme - high fire risk areas' as identified in the Fire Management Plan;
- Construction of road system which provides for two access points onto Tea Tree Road and an Emergency Access Way and Fire Service Access onto Brennan Road in the west and to southern firebreaks (in adjacent properties) to the south and meet the Acceptable Solution;

The subdivision will comply with an Acceptable Solution by applying either a 100m Hazard Separation Zone (HSZ) at the interface of the building and the bushfire hazard or a setback associated with BAL construction and AS3959-2009 as outlined in the BAL Contour Map outlined in attached BMP. It has been advised that no higher BAL allocation than BAL 12.5 needs to be applied to the dwellings.

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## 9.0 INFRASTRUCTURE & SERVICING

In 2009 SMEC Urban civil engineering consultants reviewed the subject site for potential to accommodate proposed rural smallholdings development of the property and concluded that there are no significant constraints that would preclude development of the subject land in terms of servicing for a rural smallholdings development. With the current subdivision and development occurring at Parkwood Springs Estate, services have been extended and are now closer to the subject site than beforehand.

### 9.1 Earthworks

The subject land has no severely sloping areas which would present any significant engineering constraints for road construction. The proposed road levels will be designed to match (where practical) the existing ground levels to minimise earthworks. No earthworks are proposed to be undertaken to the proposed lots.

Some earthworks will be required for the new subdivision roads and strategic firebreak access routes within the subject site to accommodate subdivision. Aside from road works, consideration may be given to improving the storage capacity of the existing soak on the property for water supply (e.g. vineyard) and aesthetical purposes. This would require separate development approval from the Shire depending on the nature of the works.

There may also be a requirement for excavation within the building envelope areas for the construction of dwellings and on-site effluent disposal, depending upon ease of excavation. This would be subject to individual geotechnical investigations and assessment for development areas.

### 9.2 Roads

Tea Tree Road is a single carriageway road providing existing access to the subject site. Tea Tree Road is currently a constructed bitumen road up to the Parkwood Estate (Lot 9502) and west onwards the road is a trafficable gravel road. As part of subdivision and development of the subject site, the section of Tea Tree Road along the frontage of the subject site would need to be constructed to a standard of the Shire's satisfaction.

Brennan Road abutting the western boundary of the subject site is a single carriageway trafficable gravel road, which extends from Tea Tree Road and terminates at the south-west boundary of Lot 2. This road would not be required to be constructed to bitumen standard, however, as outlined in the Bushfire Management Plan, Brennan Road provides an alternative access route.

### 9.3 On Site Effluent Disposal – Nutrient Management

There is no reticulated sewerage in this area and it is proposed that wastewater management be accommodated by on-site effluent disposal units. Across the development site, the yellow sands and ferricrete soils that are found have high phosphate absorbing qualities. This is based on the level of sesquioxides and clay at depth and the depth to water tables. The leached white sand on the western ridges frequently overlies yellow sand, gravel and ferricrete at depths of approximately one metre.

All yellow sand, loam, gravel and duricrust soils on the subject site are capable of supporting conventional effluent disposal systems, with the exception of the leached white sands in lower lying areas mainly found in the eastern part of the development site, particularly around the soak. These are contained within the proposed larger eastern lot in the draft Structure Plan.

The Land Capability Assessment report recommends a 100m setback for on-site effluent disposal systems from the existing soak, however under the draft development plan no lots are proposed within the eastern half of the subject site.

Late winter groundwater monitoring and laboratory soil testing confirms the site's suitability to support on-site effluent disposal. For more details on geotechnical and nutrient management (effluent disposal), refer to the Land Capability Assessment report (Appendix 1) and Land Capability for On-Site Effluent Disposal (Appendix 5).

### 9.4 Water Supply

There is no reticulated water supply in the nearby area and there are no plans to provide reticulated water to this area. Development on each proposed lot will provide a 120Kl water storage tank for potable water.

Rainwater harvesting shall be in accordance with the Shire of Chittering Town Planning Scheme Clause 5.8.5 "Non-Potable Water Supply", whereby rainfall harvesting using rain surface runoff collection areas shall be as follows:

*"Where rainfall is to be used as the predominate source for a water storage tank, the minimum collection area, in terms of rain surface runoff, to service the tank, is to be provided. The collection area will normally comprise of the roof area of structures on the lot and may include the dwelling, outbuildings and any other structure capable of collecting and directing water into the tank.*

*The size of the collection area is to be based on the following calculation:*

*Collection area (m<sup>2</sup>) = 120,000 divided by (0.85 x (local rainfall – 24mm))*

*Where:*

- *Collection area (m<sup>2</sup>) is the minimum area for rain surface runoff that is required to service the water tank.*

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- 120,000 is the minimum size of the water tank in litres (unless Council has determined an alternative size in accordance with the Scheme).
- 0.85 is the efficiency of the collection (a minimum of 85% of the water will be collected).
- Local rainfall is the average annual mean rainfall measured in millimeters (mm) guided by the nearest collection point provided by the Bureau of Meteorology.
- 24mm is the anticipated loss through absorption and wetting of materials based on 2mm a month."

Projections using the WAPC rainfall catchment calculator and mean rainfall levels from the Bindoon area show that sufficient rain harvesting is possible to service the intended zone for both potable indoor/outdoor and firefighting water requirements. Adequate water supply will require a minimum 516m<sup>2</sup> roof surface area per lot for water harvesting.

## 9.5 Power

There is existing power supply infrastructure in the vicinity of the proposed development and the subdivision would be supplied with underground high and low voltage power, including provision of transformers and switchgear around the development site. The required extensions and upgrades necessary to facilitate 'Rural Smallholdings' subdivision and development would be subject to consultations with the relevant servicing authorities at the time of subdivision.

## 9.6 Telecommunications

There is existing telecommunication infrastructure available along Tee Tree Road and preliminary consultation with Telstra by SMEC Urban indicates that it is possible to connect to this service. Additional cabling will need to be provided to service the subdivision.

## 9.7 Gas

Reticulated gas is not an available service within the area.

**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## 10.0 STAGING AND ANTICIPATED TIMEFRAMES

Subdivision and development is likely to be influenced by market demand. At present, it is likely that the developer will apply for subdivision approval to create lots in the northwest of the development site adjacent to Tea Tree Road. With the first stage of development the discussed upgrade and widening of Tea Tree Road will need to occur.

The LSP design is capable of being delivered within approximately five stages with an expected time frame of 3 to 10 years. Key infrastructure servicing will be extended to provide supply to each individual stage as they come to fruition.

## 11.0 CONCLUSION

The proposed LSP seeks to allow the creation of a Rural Smallholding estate within close proximity to the Bindoon townsite. The estate will introduce 47 rural lifestyle lots into the area with an approximate increase to the local population of 110 residents. These Rural Smallholdings lots will make good use of the land as well as providing for a transition of lot sizes from the Rural Residential lots to the east and the Agricultural Resource land to the west.

With the LSP there will also be a single larger lot that will be retained by the current landowner for development as a vineyard with the added benefits of tourism and commercial uses such as possible bed and breakfast accommodation. This lot will also act as setback from the proposed Perth-Darwin Highway limiting its effect on visual and noise amenity of the smaller lots to the west.

The environmental attributes of the subject site are such that it has been degraded over time by continual grazing. Subdivision under the proposed LSP will allow for management and replanting of vegetation as well as bushfire management of smaller lots. There are no major groundwater or drainage issues allowing for on-site effluent disposal.

Once adopted, the LSP will provide a framework to guide future subdivision and development of the subject land.



**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## FIGURES



Plan No. : 11763-12  
 Revision : REV.0  
 Scale : NTS@A4



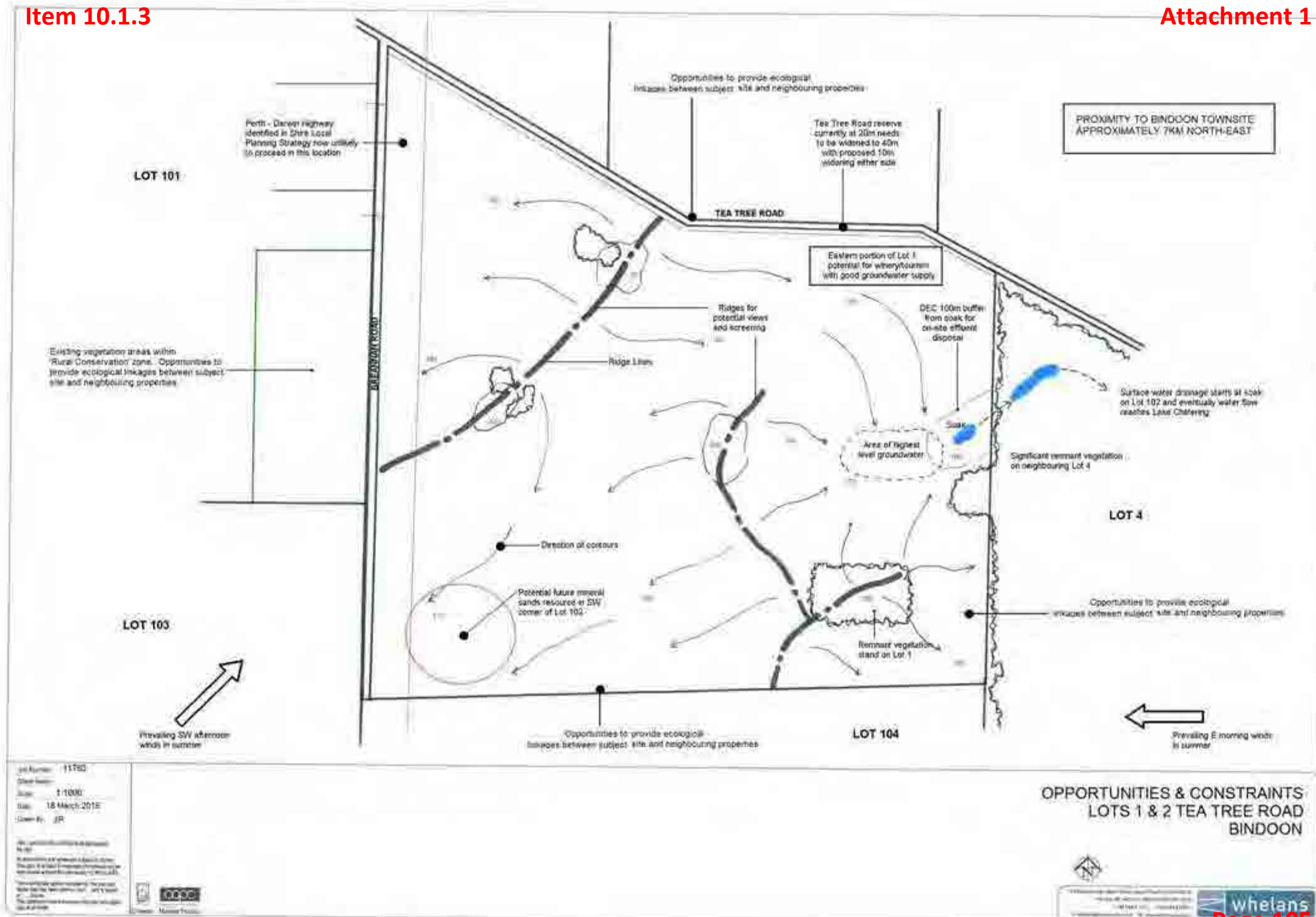
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Suite 4 First Floor 40 Resler Road Odessa Park WA 6017 www.whelan.com.au

# LOCATION PLAN LOTS 1 & 2 TEATREE ROAD BINDOON

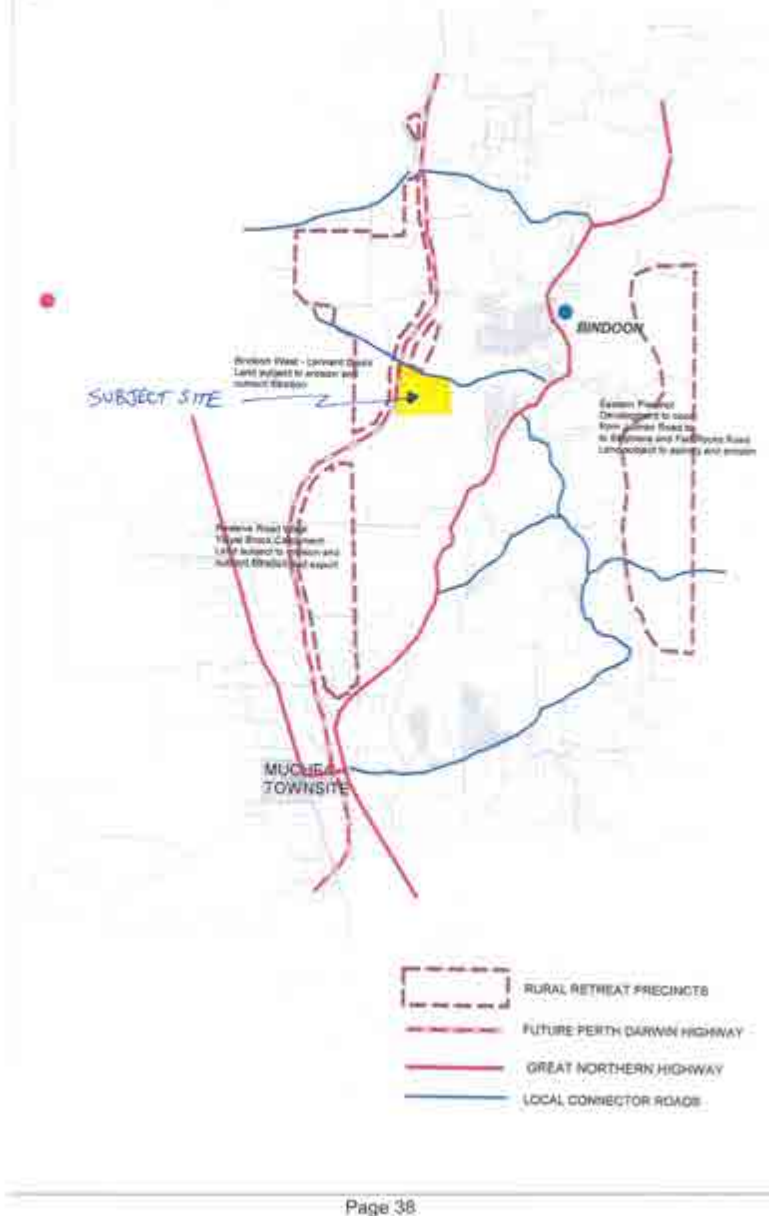
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DATE: 01/02/2018  
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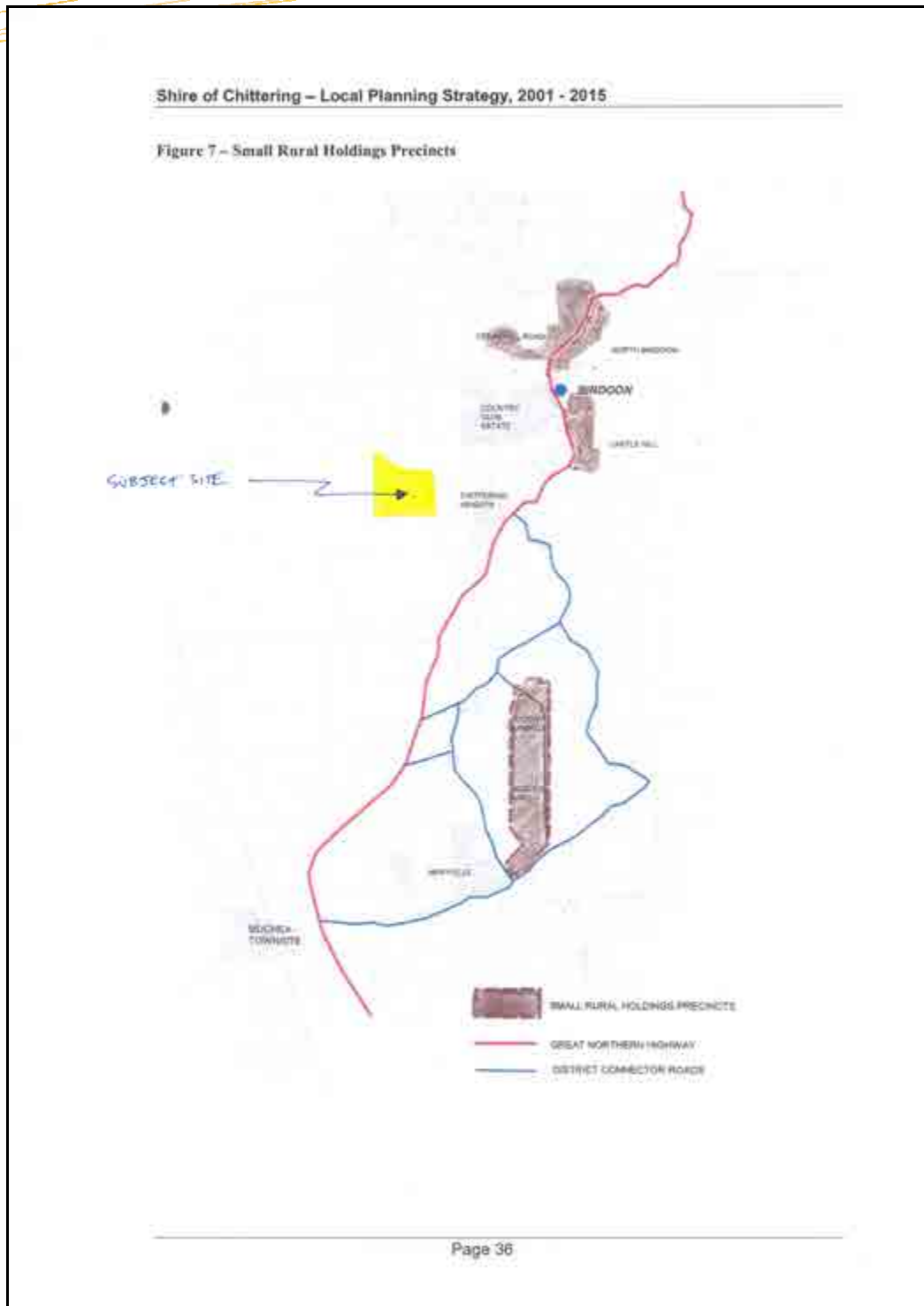
## Shire of Chittering – Local Planning Strategy, 2001 - 2015

Figure 8 – Rural Retreat Precincts



(Source: Shire of Chittering Local Planning Strategy, 2004 - modified)

**FIGURE 3**  
LPS RURAL RETREAT PRECINCTS

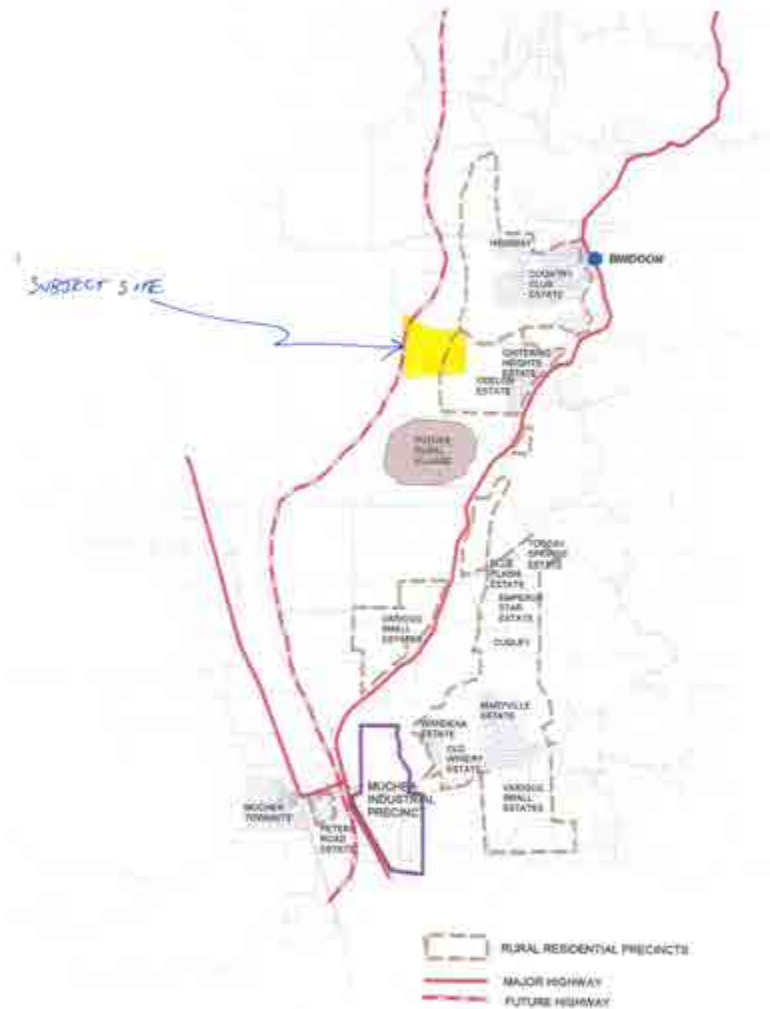


(Source: Shire of Chittering Local Planning Strategy, 2004 - modified)

**FIGURE 4**  
LPS RURAL SMALLHOLDINGS PRECINCTS

## Shire of Chittering – Local Planning Strategy, 2001 - 2015

Figure 6 – Rural Residential Precincts



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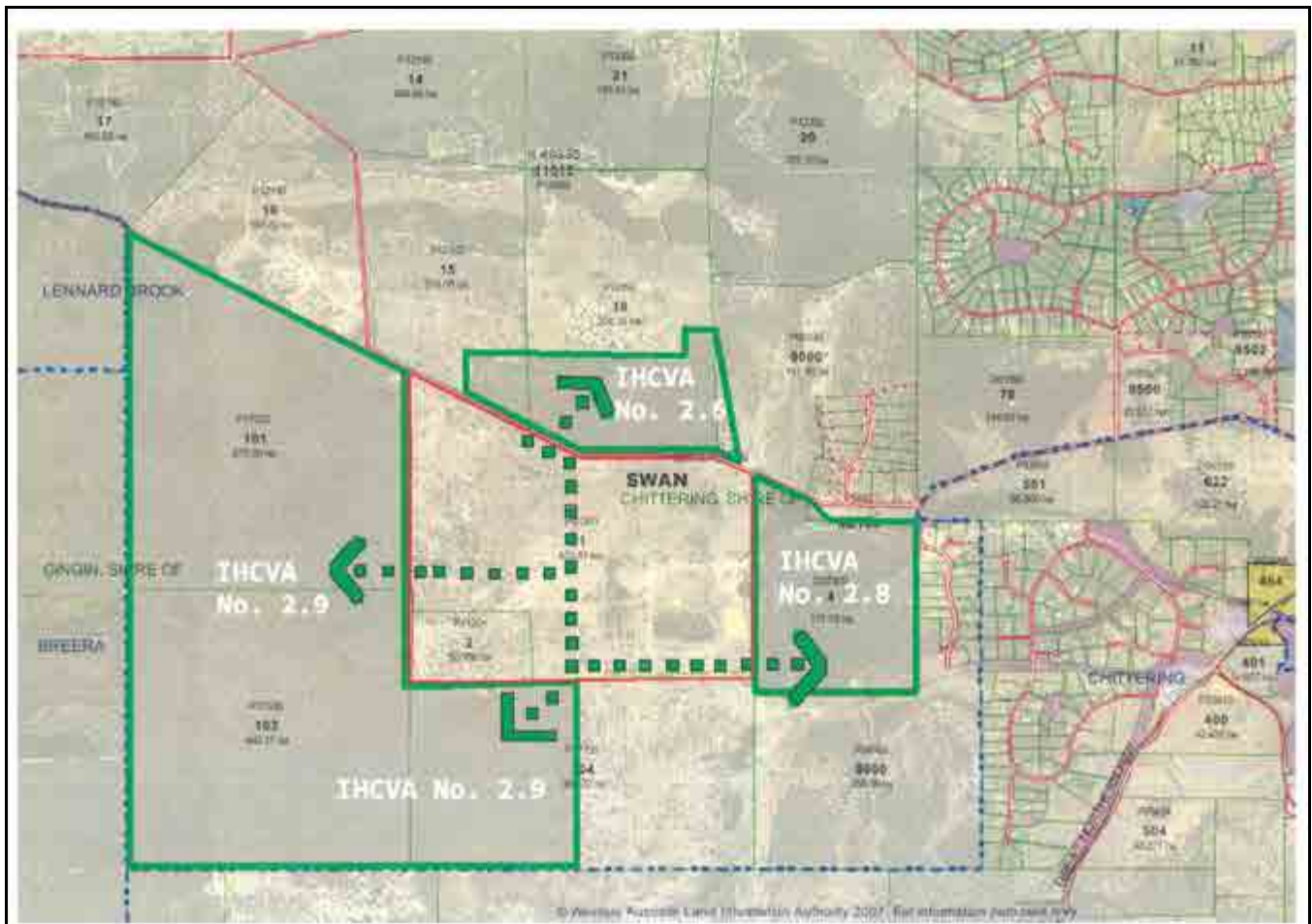
(Source: Shire of Chittering Local Planning Strategy, 2004 - modified)

**FIGURE 5**  
LPS RURAL RESIDENTIAL PRECINCTS





FIGURE 6  
HYPOTHETICAL RURAL RETREAT SUBDIVISION



(Source: Landgate - modified)

**FIGURE 7**  
ECOLOGICAL LINKAGES

**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## APPENDIX 1 – ENVIRONMENTAL ASSESSMENT REPORT

# **LAND CAPABILITY ASSESSMENT**

**LOT 102 TEATREE ROAD**

**CHITTERING**

**Prepared by**

**LANDFORM RESEARCH**

**25 Heather Road  
Roleystone**

**MAY 2000**

**Note:** This is not the original cover page for the Landform Research Report and has been prepared for identification purposes only.

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**PLANS**

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Geotechnical Risk  
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**PHOTOGRAPHS**

Aerial photography  
General view across central north east of Lot 102  
Regrowth of native vegetation in the south west  
Soak on eastern boundary  
Yellow sands that underly most of the site



## 1.0 INTRODUCTION

This study of Lot 102 Tee Tree Road, Chittering, was carried out to assess the current environmental status of the land, determine the land capability, and identify particular land uses suited to the site. The environmental management of the potential land uses was also considered. The assessment was based on a field analysis on 3 May 2000, 48 soil auger holes, geological and hydrological mapping, knowledge of the area, aerial photography interpretation and published information.

The site lies approximately 7.0 km south of Bindoon townsite, on the southern side of Tee Tree Road. The western boundary of Lot 102 will be slightly altered and moved eastwards when the planned Perth Darwin Highway is constructed. This will reduce the size of the lot by perhaps 40 hectares.

The current area of Lot 102 is 483.9 hectares.

## 2.0 EXISTING ENVIRONMENT

### 2.1 Geology and Geomorphology

The land varies from two main ridges at just over 210 metres in the south east corner and 205 in the central west dropping to 175 metres in a gentle valley in the south western corner and 163 metres on the central eastern boundary. Lot 102 straddles the divide between the east flowing streams and the west flowing streams.

The site lies at or just west of the Darling Fault, based on field geology on adjoining properties and gravity interpretation from the 1 : 250 000 Perth Geology Sheet, WA Geological Survey.

No rocks of the Chittering Metamorphic Belt occur on site, with the main rock type being remnants of a ferricrete cemented sandstone of alluvial origin that caps the ridges across the site. These may possibly have formed prior to the Eocene, and were slightly uplifted in the Late Eocene uplift which changed river patterns in the south west of Western Australia. This rock is resistant to erosion and this resistance has resulted in the formation of the ridges.

Deep yellow sands cover the remainder of the property. These sands are quartz sands of aeolian (wind deposition) origin or have been reworked by winds. They are earthy at depth and may have originally contained feldspar, which has now weathered to clay. Leaching of the sand to white sand, occurs in the valleys.

As the site appears to be west of the Darling Fault it is interpreted to be underlain by Cretaceous sediments on top of Mesozoic and Palaeozoic sediments of the Perth Basin.

## 2.2 Soils

The soils of the site reflect their position in the landscape and the underlying geology.

Resistant ferricrete with minor associated gravel is exposed on the higher elevations of the ridges with. Yellow sands cover the lower elevations and valleys, becoming thicker and more leached towards the stream valley floors.

The sand can be divided into three main types based on the colour, composition and fertility. Fertility is assessed as showing better pasture growth on aerial photography 19996 – 98.

Soil types are;

- Ferricrete and Gravel
- Leached Sand over Gravel
- Earthy Yellow Sand
- Yellow Sand
- Leached White Sand

**Ferricrete and Gravel** caps the ridges. The laterite duricrust restricts root penetration ensuring that the soil has very low capability. In general these soils have not been cleared.

**Leached Sand over Ferricrete** occurs on the upper slopes where grey sand over white or cream sand is generally 300 mm to 1000 mm thick over ferricrete. The soils are relatively infertile but the ferricrete influences soil fertility as shown by aerial photography by having better nutrient and water retention at depth. White sand deeper than 1000 mm, even if ferricrete does occur at depth, is of even lower fertility and is labelled Leached White Sand.

Hole 3	Central east
0 – 70 mm	Dark grey quartz sand
70 – 360 mm	Cream sand
360 – 880 mm	Pale yellow sand
880 mm	Ferricrete gravel
End of hole at 880 mm	

**Earthy Yellow Sand** occurs on the upper and mid slopes particularly in the central north. The sand has a thin grey surface horizon over dark yellow sand that is predominantly earthy, with small amounts of clay increasing with depth from a horizon that varies from near the surface to over 1000 mm. These soils are shown by aerial photography of pasture quality to be the most fertile on site with good broad acre and perennial horticulture capability (provided sufficient water is available). The clay and goethite increase the water and nutrient retention of the profile, which is moderate.

Hole 12 South eastern corner	
0 – 100 mm	Grey quartz sand
100 – 1 560 mm	Yellow sand becoming darker with depth
1 560 – 1 970 mm	Dark yellow earthy sand
End of hole at 1 970 mm	

**Yellow Sand** occurs on the mid slopes where leaching has occurred. Its colour varies from cream to yellow in the upper horizons depending on the amount of goethite present. Clay has generally been removed from the upper metre of the soil profile. Leaching of the upper horizons reduces the fertility but the nutrient retention of the profile remains high for effluent disposal based on the depth of the soil.

Hole 47	Central north western corner
0 – 120 mm	Grey quartz sand
120 – 560 mm	Cream to pale yellow sand
560 - > 1 000 mm	Yellow quartz sand
End of hole 1 000 mm	

**Leached White Sand** is a leached white quartz sand formed from the removal of the yellow brown goethite covering from the quartz grains. These occupy the valley floors from the south west through to the eastern edge, and a patch in the north west. The leached sand contains in excess of 1 to 2 metres of white sand over yellow sand at depth. These soils have low to very low soil fertility and capability. In more recent times native vegetation on these soils has been allowed to regrow because of the low fertility in the west.

The areas of lowest elevation are wetter and thus are more capable for agricultural activity

Hole 28	Central south western corner
0 – 110 mm	Grey quartz sand
110 - > 1 300 mm	White quartz sand grading to cream quartz sand
End of hole 1 300 mm	

## 2.3 Climate

The climate of the area is typically Mediterranean with warm to hot dry summers followed by cool to mild wet winters. Data is recorded at Bindoon.

Summer maximum temperatures range from about 33 °C in the hottest months down to between 17 - 18 °C in winter. Minima range from 17 °C in summer down to 7 °C in winter. Rainfall at Bindoon averages about 795 mm.

Wind directions are predominantly from the east on summer mornings and south west in the afternoon depending on the arrival of the sea breeze. Winter winds are more variable.

## 2.4 Hydrology

Surface drainage is minimal due to the permeability of the soil, with only a small flow emanating from the soak/dam in the central east, draining to the east to ultimately enter Lake Chittering.

Groundwater drains from each catchment, defined by the ridge highs of the basement, with the volume being directly proportional to the size of the catchment and depth of sand. Therefore the greatest volumes of groundwater are in the central east valley and the south west. Water is available in the north but quantities will be reduced because the area of catchment is less.

Salinity levels are low, being 70 mSm in the soak on the eastern boundary, and 50 mSm in the bore in the centre of the site (potable water is <170 mSm). The current owner stated that the bore was at a depth of 30 metres.

There is no evidence of surface salinity and, considering the extent of clearing, and the depth to underlying sediments, it is unlikely that salinity will be expressed in the surface soils in the future.

## 2.5 Vegetation

The sandy soils are predominantly cleared apart from scattered trees which have mostly been retained. The gravel ridges have largely been left as remnant vegetation, but have been grazed to the extent that species are restricted in richness and density in most areas. The leached white sands in the west and south west have been allowed to regenerate and some indigenous species are now gaining a hold in these areas.

It was not possible to search for Rare and Declared species because of seasonal factors. *Acacia anomala*, a Declared Rare Plant, may possibly occur in the area but would be restricted to the ferricrete ridges which are recommended to remain as remnant vegetation.

Tagasaste has been planted in the central south on leached and yellow sands.

The main vegetation on the site are tree remnants of Eucalypt woodlands. The following partial community types are represented by scattered Eucalypts and taller shrubs;

**Jarraah-Marri** (*Eucalyptus marginata*, *E. calophylla*) Woodland occurs on the ferricrete/gravel and duricrust, grading into Jarraah Woodland where duricrust becomes significant and the soil more shallow. Marri Woodland was the dominant original vegetation on the yellow sand but changes to **Pricklebark** (*E. tottiana*) Woodland and remnant **Banksia Woodland** as the sand becomes more leached to the south west.

*Juncus pallidus* occurs on wet pasture areas with the introduced *Isolepis prolifera* associated with the wet area around the soak in the central east.

No evidence of dieback disease was noted.

Species noted during the site inspection are listed, with their most common habitat noted,

	Ferricrete Ridge remnants	Sand areas
<i>Allocasuarina humilis</i>		X
<i>Baeckea camphorsmae</i>	X	
<i>Banksia grandis</i>	X	
<i>Banksia menziesii</i>	X	
<i>Bossiaea eriocarpa</i>		X
<i>Calothamnus quadrifidus</i>	X	
<i>Conostephium pendulum</i>		X
<i>Conostephium pendulum</i>		X
<i>Daviesia incrassata</i>	X	X
<i>Daviesia triflora</i>		X
<i>Drosera pallida</i>	X	
<i>Dryandra lindleyana</i>	X	
<i>Dryandra sessilis</i>	X	
<i>Eremaea pauciflora</i>		X
<i>Eucalyptus calophylla</i>	X	
<i>Eucalyptus marginata</i>	X	
<i>Eucalyptus tottiana</i>		X
<i>Gastrolobium calycinum</i>	X	X
<i>Grevillea synaphea</i>	X	
<i>Haemodorum spicatum?</i>	X	
<i>Hakea lissocarpha</i>	X	
<i>Hibbertia cuneiformis</i>		X
<i>Hibbertia huegelii</i>	X	
<i>Hibbertia hypericoides</i>	X	X
<i>Hibbertia lasiopus</i>	X	
<i>Isolepis prolifera</i>		X
<i>Jacksonia floribunda</i>		X
<i>Juncus pallidus</i>		X
<i>Lepidosperma angustifolium</i>	X	X
<i>Lyginia barbata</i>		X
<i>Mesomelaena stygia</i>		X
<i>Mesomelaena tetragona</i>	X	
<i>Nuytsia floribunda</i>		X
<i>Patersonia juncea</i>		X
<i>Petrophile semuriae</i>		X
<i>Petrophile striata</i>	X	
<i>Petrophile linearis</i>		X
<i>Stirlingia latifolia</i>		X
<i>Styphelia tenuiflora</i>	X	
<i>Synaphea spinulosa?</i>		X
<i>Xanthorrhoea gracilis</i>		X
<i>Xanthorrhoea preissii</i>	X	

### 3.0 LAND CAPABILITY

#### The opportunities of the site are:

- Shallow ground water of high quality through the central and eastern parts of the site.
- Proximity to Bindoon.
- The presence of cottage and perennial horticulture in the Bindoon-Chittering area which could be extended to this site.
- The potential to further develop tourism in the Bindoon-Chittering area.
- Proximity to the proposed Perth to Darwin Highway.
- Remnant vegetation on the ridge areas.
- The presence of yellow sand over most of the site, which has good phosphorous retention in its profile.
- The form of the ridges which provide visual screening as well as increasing the aesthetics of the site.
- The presence of the wetland/soak in the central east.

#### The constraints on the site are:

- The poor quality of the ferricrete soils.
- A lack of supplementary water supplies over the ridge areas.
- Potential for wind erosion on the sandy soils.
- Shallow ground water that could be altered through in-appropriate land use.
- The presence of significant shallow groundwater flows that form the start of a water flow to Lake Chittering.
- The presence of significant areas of leached white sand that has very low agricultural capability and susceptibility to wind erosion.

### 3.1 Water Availability

The shallow sand filled valleys contain abundant shallow ground water, particularly in the central eastern parts. The groundwater drains from each catchment as defined by the ridges with the volume being directly proportional to the size of the catchment and depth of sand. Therefore the greatest volumes of groundwater are in the central east valley and the south west with lesser flows in the north and north west.

The nature of the site may however permit water to be available from depths of about 30 metres on the ridges which is slightly above the elevation of the shallow groundwater in the valleys.

Salinity levels are low, being 50 - 70 mSm which is potable (potable water is <170 mSm). Potability could be restricted in some areas by elevated iron levels.

Catchment on the site is difficult to estimate, but with a rainfall of 795 mm perhaps 15% of precipitation may reach the water table based on the depth to groundwater. If this was the case a recharge of 1 200 kL per hectare may be possible. Quantities will need to be proven in the field prior to any large scale development being undertaken. The soak in the east may have a catchment of 25 hectares which could result in available water of 30 000 kL/year. This volume of water would be sufficient for 10 hectares of olives. A similar volume may be available in the south western corner.



With the location of the site on or just west of the Darling Fault, there is potential for deep groundwater. However contact with Water and Rivers Commission officers reveals that potential aquifers are not available and any supplies of deep groundwater are small and unlikely to be sufficient for agricultural land uses apart from stock supplies and minor perennial horticulture.

Lot 102 lies within the Gingin Groundwater Area and thus licences are required for both deep and superficial aquifers. Apart from maintenance of environmental flows, licences are likely to be available for extraction from the superficial aquifers.

### 3.2 Soil Types

Soil types range from moderate for many agricultural activities on the earthy yellow sands to low and very low on the leached white sands and areas of ferricrete outcrop. The better soils can be identified from aerial photography and field observation to be significantly better than the leached sand over gravel and the yellow sands.

Perennial horticulture such as olives is suitable for the earthy sands with wine or dried grapes in selected areas of earthy sands. These sands will however require irrigation and improvement through the addition of organic matter. The leached sand over ferricrete, whilst being better than leached white sands, has low capability for more intensive agriculture and is probably better planted to perennial pasture and stock feed shrubs such as *Tagasaste*.

The ferricrete gravels of the ridges have low capability for agriculture and should not be cleared.

See attached Land Capability maps.

### 3.3 On Site Effluent Disposal - Nutrient Management

The yellow sands and ferricrete soils have high phosphate adsorbing qualities based on the level of sesquioxides and clay at depth and the depth to water tables. Even the leached white sands on the ridges frequently overlies yellow sand, gravel and ferricrete at depths of a metre or so.

All yellow sand, loam, gravel and duricrust soils are capable of supporting conventional effluent disposal systems with the exception of the low elevation leached white sands which should be excluded from effluent disposal or will require alternative waste water disposal systems to ensure workable waste water disposal. 4.6 Nutrient Management-Effluent Disposal

### 3.4 Basic Raw Materials

There are supplies of sand on Lot 102. The earthy sand has potential as "bricks" sand and the leached sand potential for fill sand. Currently the market for these sands is low but in the future this will increase as the rate of development increases in the area.

Whether this sand should be retained for future use in the construction industry is debatable bearing in mind the long time frames for markets to increase. As the majority of land in the Bindoon area is broad acre land on which similar sand resources occur this site may not be

required. A larger lot in the south western corners could be set aside to protect sand resources if required. This area is currently being allowed to slowly revegetate to indigenous species.

### **3.5 Stocking Rates**

The leached white sands have stocking rates of less than 1 DSE (one dry sheep equivalent per hectare if maintained on site all year round) if they are dry and not located on the lower elevations where summer moisture is available. Yellow sands have a slightly higher stocking rate of 3 to 5 depending on the soil, geomorphic position and availability of water for pasture management. A horse is rated as equivalent to 12 DSE.

The ferricrete ridges should not be stocked because of their poor pasture growth and difficulty with management.

The availability of water for summer irrigation pasture improvements and the use of perennial species can increase stocking rates significantly on all soil types.

Wind erosion of the site is currently moderate but could be extensive if adequate vegetation cover was not maintained. Care must be taken with the yellow sand leached sands which can easily blow when disturbed in summer.

## 4.0 POTENTIAL LAND USES

### 4.1 Current Land Uses

In the recent past the property has been used for grazing with occasional cereal and lupin crops. Currently the site is used for grazing.

### 4.2 Potential Land Uses

Some parts of Lot 102 are capable of more intensive land use provided groundwater is available as interpreted and observed around the soak in the east and the south western corner. There is a good opportunity to develop parts of Lot 102 as small scale perennial horticulture to complement other activities in the Bindoon-Chittering area such as tourism.

There is always a divergence of opinion on what is the best use for land such as this. The best soils are also the best soils for perennial horticulture and hobby rural blocks as they are least likely to degrade. On the other hand it is a more sustainable option to nominate areas where soils are known to be good as blocks suitable for perennial horticulture. This preserves the best soil and water resources for viable rural activities. Land of lower quality can then be used for hobby agriculture.

- Perennial crops are well suited to the region such as olives, essential oils, carob beans, nuts, floriculture, stone, citrus fruit and grapes on the better earthy yellow sands with water available.
- Aquaculture for yabbies, trout and marron in fresh water dams and tanks is unlikely to be viable because of the potential for nutrient loss and lack of suitable material for dam construction.
- Floriculture could be based on either indigenous flora such as Geraldton Wax, Banksias, Smoke Bushes, Eucalypts, Kangaroo Paws, Honey Myrtles, or exotics like Proteas on better soils.
- Some small areas are suited to cottage industries such as lavender, herbs and the like which require small areas and supplies of fresh water. These would compliment the local tourist craft and cottage industries.
- Perfume, essential oils and essences could be incorporated into cottage and craft industries to become a focus of tourism
- On the other hand intensive stocking is not appropriate because of the potential for soil erosion. However alternative stock such as emus and ostriches, may be sustainable because of the quality of the soils, provided adequate soil cover is maintained.

### 4.3 Agroforestry

Agroforestry is the intermingling production of agricultural produce with forestry produce. This could either take the form of alley type farming or the growth of small plantations developed as crop diversification, which may allow selected livestock to graze the understorey to reduce the weed and grass competition, while also preventing a fire hazard.

The trees can be selected to provide summer fodder, shelter belts, wind breaks, honey production, and wildlife habitats, depending on the trees used. This type of landuse could be the grazing of stock within the pine plantation following thinning to allow more light and the growth of pasture species.

#### Plantation Crops

Radiata Pines, Pinaster Pines, Tasmanian Blue Gums, Eucalyptus oil production may be possible. Other species may also be possible following research and the establishment of markets such as Blackwood *Acacia melanoxylon*, Spotted Gum *Eucalyptus maculata* and White Cypress *Callitris columellaris* and there may well be other suitable trees available as current and future research investigates and improves Australia's flora. The rainfall of 795 mm meets the criteria for these tree crops with perhaps Pinaster Pines being the most likely.

#### Plant Oil Production

There is great potential for the use of eucalyptus oil as a biodegradable industrial solvent. Recent advancements in bulk harvesting and processing, combined with development of high yielding clone varieties, allow oil mallee to be planted as double rows of trees one machine width apart. Planting density is typically 1100 to 1300 trees per hectare although this site is unlikely to have sufficient area for a viable industry.

The importation of essential oils increases annually and was near \$8 million in 1988/89. Oil production from genera such as *Leptospermum*, *Melaleuca*, *Kunzea*, *Eucalyptus* and *Baeckea* can provide a source of steam volatile oil that has uses in the perfume, flavouring, antiseptic and veterinary industries. Generally these species require large quantities of water and would only be sustainable on the lower slopes in the eastern portion of the site where irrigation is available. These generally need to be large mechanised operations extending over 10 or more hectares.

### 4.4 Viticulture

Viticulture encompasses both table grapes, wine and dried fruit production. The market is expanding for grape products for the local and export markets. Vineyards have already been established in the general area, but normally on the better loam soils. The earthy yellow sands have lower potential than the loam soils in other parts of the Bindoon area but have potential to provide a variation in both the type of grape and quality of the wine produced, which may be exploitable.

#### Table Grapes

Table grapes are grown with summer irrigation to increase the size of the berry. When correctly established table grape production from 1 - 2 hectares can be viable with crops producing up to 30 tonnes per hectare. Trellising and protection from birds is essential and increases establishment

costs to \$50 000 per hectare. The valley slopes on the earthy yellow soils are well suited to table grapes. Table grapes will need to be regularly irrigated but wine and currant grapes may not require daily watering. Trickle or micro-sprinkler fertigation systems are preferred.

### Wine Grapes

Wine grapes require less summer water but need to be actively growing to allow good sugar production whilst at the same time maintaining the flavour and aroma compounds that are essential to good wines. Rainfall during the ripening period will cause sudden swelling and cracking of the grapes and encourage fungal attack as will high humidity. Frost is of low potential in this area.

North facing slopes are preferred as these maintain higher night temperatures in the soils. Wind is to be avoided and therefore the gently sloping valleys slopes are highly suitable particularly in the east.

Yields can be 5 - 15 t/ha depending on the level of irrigation with the lower yielding vineyards producing better wine because of increased flavour. A minimum area of about 4 - 8 ha of grapes is normally required for a small viable winery but there are markets for grapes produced by smaller operations which can be sold to existing wine makers in the Chittering/Bindoon area. Water requirements are lower than for table grapes and can be from 2 000 - 3 000 kL/hectare/year. In Wandering wine grapes are grown with only 600 kL per hectare because of the lack of water, but if available at least 1 200 kL per hectare is desirable. However a minimum of 3 000 kL per hectare should be planned for.

Typical vineyards in the Perth hills produce small quantities of wine, for example Avalon, Glen Forrest (100 cases annually from 2.5 hectares), Darlington Estate, Darlington (2000 cases annually), Piesse Brook, Bickley (1000 cases annually from 4 hectares). Olive Farm has 12 hectares with 11 varieties of grapes producing only 4 000 cases annually.

Smaller vineyards such as these normally pre-purchase grapes from quality vineyards. For example Aquila Estate is developed on similar yellow sand at Carabooda. It has only 4 hectares of vines but purchases grapes under long term contract from other areas such as Margaret River.

The current price for grapes varies from \$700 to \$1 500 per tonne, with say an average price of \$1 200 for high quality wine grapes at an average production of perhaps 6 t/ha. Greater tonnages per hectare do not normally command as high prices. For example at 15 tonnes per hectare a price of only \$700 per tonne may be paid. With increased plantings in recent years top quality grapes will always attract a premium but can only be produced where water is restricted or manipulated. Therefore grapes can generate about \$7 000 - 9 000 per hectare, making a viable income on relatively small vineyards of 8 hectares. In addition it is generally recognised in the industry that a family is capable of working 5 - 8 hectares of vines as a family operation with additional labour only required at picking time.

Recent research by CSIRO has shown that two fertigation lines alternatively used will enhance yield, reduce water consumption by half and produce better quality grapes.

### Dried Grapes

There is increased interest in dried fruit, of high quality and extensive plantings have now been made in the eastern states. These must be planted to enable full mechanisation. Dried sultanas



and currents can attract \$1000 per tonne for high quality fruit with a production of 10 tonnes dried fruit per hectare. The plantings in the eastern states are in the order of 200 hectares but smaller mechanised plantings and co-operatives are possible.

#### 4.5 Other Crops

##### Herbs

Herbs have a high potential to form the basis of cottage or commercial industries. The potential for herbs is growing because of increasing world wide use and the fact that Australia currently imports over 90% of its herb needs. Herbs are used for food flavourings, pharmaceuticals, essential oils and insecticides. Many herbs could potentially be grown but as some require different climatic conditions, research is needed into the selection of the most appropriate species for the area. These are normally grown on a larger scale using mechanised harvesting. For example profit margins of about \$1 200 per hectare would dictate a large operation unsuited to this site (Hyde 1998).

##### Essential Oils

There are many essential oils such as the tree crops (discussed under trees) and a wide variety of oils derived from herbs. Nearly \$3 million peppermint oil and nearly \$5 million of other oils were imported in 1988/89 although production has since commenced in the eastern states. These would fit very well into the current agricultural trends in Bindoon and could supply some of the local markets.

Examples include lemon, rose and peppermint oils from pelargoniums and lemon from lemon grass. Large mechanised operations are normally required for other than hobby incomes and these will be restrained by the slopes on this site.

##### Lavender

On the other hand Lavender has large potential markets for oil production or as heads of dried lavender. Dried lavender heads return \$18 to \$22 per kg. Stems of lavender sell for \$1.50 to \$2.00 per bunch wholesale with up to 10 bunches per bush and 3 000 - 5 000 bushes per hectare depending on the level of mechanisation. Selling stems and value added products could make a 2 hectare operation viable.

A variety of methods of extraction such as steam distillation, maceration and expression can be used to extract oils. Larger areas are required when oil is produced.

Soils are suited to production, and *Lavandula stoechas* is growing wild on the site.

#### 4.6 Freshwater Aquaculture

Aquaculture for yabbies, trout and marron in fresh water dams and tanks is unlikely to be viable because of the potential for nutrient loss and lack of suitable material for dam construction.



#### 4.7 Floriculture

Almost any native or exotic species suited to Mediterranean climates could be grown on the earthy yellow sands using water taken from the central drainage lines, and the plants watered by trickle irrigation. Water increases the quality and quantity of the blooms. Typical species could be Geraldton Wax, kangaroo paws, smoke bush, many of the Myrtaceae, Banksias, Verticordias (feather flowers) and other genera.

Floriculture can vary from native plants requiring low levels of water to exotics that require similar amounts to vegetables (up to 10,000 m<sup>3</sup>/ha). Depending on the species grown there should be sufficient water for a viable operation.

Dieback disease is a major concern for the industry as many species of wildflowers are susceptible.

Using suitable management techniques such as fertilising, pruning and removal of competitors, floriculture can return between \$1 000/ha to \$2 500/ha. The current market for flowers is the east coast of Australia and overseas, where markets are growing and new markets are being sought.

Almost any native or exotic species suited to Mediterranean climates could be grown on the site with water taken from the central drainage lines and the plants watered by trickle irrigation. Water increases the quality and quantity of the blooms. Typical species could be Geraldton Wax, kangaroo paws, smoke bush, many of the Myrtaceae, Banksias, Verticordias (feather flowers) and other genera. The local *Boronia megastigma* is particularly suited and commands high prices when sold by the bunch.

Using suitable management techniques such as fertilising, pruning and removal of competitors, floriculture can return between \$1 000/ha to \$30 000/ha depending on the variety. The current market for flowers is the east coast of Australia and overseas, where markets are growing and new markets are being sought. Areas of 2 to 20 hectares can be viable depending on the species.

It is not uncommon for floriculture to be able to generate a viable or good hobby farm income on 2 hectares, for example Proteas, Lavender, Melaleuca and Eucalypts foliage, bulbs, Chrysanthemum, Roses, whereas some other species may require larger areas.

Some examples of areas required for a potentially viable income;

Lavender, roses, Chrysanthemum,	1 - 2 hectares
Banksias, bulbs	2 - 5 hectares
Boronia, Melaleuca and Eucalyptus foliage	2 - 3 hectares
Flannel Flowers	1 - 2 hectares
Geraldton Wax	1 - 2 hectares
Kangaroo Paws	2 - 3 hectares
Proteas	2 - 4 hectares

The most prospective areas are the yellow sands of the central north and east.

#### 4.8 Fruit Trees/Perennial Horticulture

Perennial horticulture can include citrus, nut crops, olives, stone fruit, apples and the like. Again the area required to produce a viable income or hobby income will vary with the species grown, however for most perennial fruit such as apples and stone fruit a minimum of 5 - 10 hectares is required. Some speciality fruit such as Kiwi Fruit, passion fruit and others can generate a viable income from 2 - 3 hectares.

**Stone Fruit, Citrus** and some other perennial crops require much higher water usage of up to 10 000 kL per hectare which will restrict them to the eastern and possibly south western edges where earthy yellow sands occur near available water.

The earthy yellow sands, whilst capable of growing citrus trees, are not as good as the loam soils utilised in other parts of the Bindoon area..

**Olives** are suited to long, warm, dry summers with temperature ranges of 31 to 38 degrees C. A winter chill factor of 10 to 12 degrees mean temperature suggests that inland and southern areas are more suitable. Mature trees under irrigation produce 50 kg per year whilst non irrigated trees can be expected to produce half this amount. The Australian market is large and growing for both fruit and oil. In 1996/97 \$100 million olive oil and fruit were imported but significant plantings have been made Australia wide in the last year or two. Today the world market is satisfied so export potential could be restricted.

The most suitable soils for olives are the earthy sands. Irrigation of only 3 000 kL/hectare/year is required for table fruit but this can be reduced to increase the intensity of the flavours. Premium quality oil is probably where the best market potential lies but will need good marketing efforts and/or value adding to make any plantings viable. Depending on the variety and type of value adding 2 - 20 hectares of olives can produce a viable income. For example at Margaret River Stellar Ridge winery is trialing value added olive products that can produce a viable income from one hectare of olives.

#### Nut Crops

Nuts require conditions similar to those for fruit trees however most are popular with parrots and cockatoos and thus will require protection if they are to be grown successfully.

**Almonds** are more suited to the site and may not require summer water.

**Pecans** and **Walnuts** need deep, well drained soils and moisture throughout the year, particularly from spring to mid-summer. They could form part time incomes from small lots.

Other nut crops that have potential are as follows: **Pistachio, Quandong, Bunya Pine, Ginkgo, Jojoba, Manula and Tung**. (Suitability details should be obtained from the Department of Agriculture W.A.).

#### 4.9 Alternative Stocking

Whilst, traditionally, areas such as this have been used for cattle there are several alternative animals that can be raised on small holdings because they command higher values and are easier

on soils. In general intensive stocking is not suitable for this site because of the steeper slopes and potential for nutrients to run off in surface flows.

**Emus and Ostriches** can be stocked at much higher stocking rates than hoofed animals because they are "easy" on the soil and are less likely to lead to soil degradation. Viable emu or ostrich businesses have been established on as small as 2 - 5 hectares. At this level they do not have the same environmental impact in terms of odour and soil degradation as other stock and do not need large buffers such as pigs. For example there are operations on Armadale Road, Forrestdale and at North Dandalup on small holdings adjacent to dwellings. Currently the price of these birds is depressed but with development is likely to turn around at some time in the future. There are some indications in the eastern states of increased interest in ostriches. However emus and ostriches on small rural holdings may have the potential to lead to nutrient loss from leached soils and thus suitable nutrient management techniques may need to be incorporated into any commercial venture depending on the location.

**Alpacas and Llamas** have soft hooves and are also suitable for stocking at higher than traditional rates. They command high prices and studs can be sustained on small lots down to 5 hectares or less. Currently these studs are aimed at the pet and stud markets, but the fleece commands high value and, as the cost of the animals reduces through increased numbers of animals, a balance will be reached where commercial production will occur.

An Alpaca stud currently operates on the Toodyay - Northam Road near Northam.

Small studs of **Goats** with premium fleece characteristics such as Angoras and Mohair are possible in addition to use as hobby activities. **Milking Sheep and Goat** operations, with the consequent production of small volumes of cheese, can be operated on small holdings, although supplies of fresh water for processing may prove limiting in some areas. At high stocking rates these have high potential to lead to soil degradation from wind erosion through hoof damage to pasture. The same situation exists for deer.

**Small cattle such as Dexter and Lowline** require less land and command higher prices as stud animals. These breeds are very well suited to small rural holdings because they are easy to manage and do not require the equipment and fencing needed for larger breeds. There is a growing market for small cattle on small rural holdings and the owners of these holdings normally have the funds to pay the higher prices required.

**Miniature Horses** have similar qualities and are just at the stage of developing a pet market for small rural holdings.

## 5.0 GEOTECHNICAL CONSIDERATIONS

### 5.1 House and Road Construction - Foundation Stability

Foundation stability for roads is high for all soils.

Foundation stability for dwellings is also high in all areas (AS 2870 Site Class A). The area around the soak in the central east is not suitable for dwellings or waste water disposal because of the leached sands and elevated water tables.

	GEOTECHNICAL FACTOR	MANAGEMENT
5.1.1	Foundation stability	<ul style="list-style-type: none"> <li>Foundation stability is AS 2870 Class A</li> </ul>

### 5.2 Drainage and Flood Risk

All areas apart from adjacent to the soak and the north eastern corner adjacent to the road are well drained.

There is no evidence of potential flooding.

	GEOTECHNICAL ISSUE	MANAGEMENT
5.2.1	Flood risk	<ul style="list-style-type: none"> <li>There should be adequate setback of 100 metres from the soak in the central east.</li> </ul>

## 6.0 ENVIRONMENTAL MANAGEMENT

The following items are identified as the most likely to impact on the environment. These items can be managed by the implementation of the management recommendations. Other items are unlikely to impact or the impact is regarded as small.

However the nature of the environmental management will depend on the nature of the subdivision proposed. Some areas of subdivision are proposed on the attached maps, but these are suggestions and will depend on planning issues. Thus the list of environmental management recommendations will act as a general guideline on how to achieve an environmentally sensitive development.

### 6.1 Aesthetics

The undulating nature of the site, and the low ridges, increase the aesthetic quality of the site as well as helping to reduce the impact of developments by providing sufficient screening. However the northern portion of the site is visible from Tee Tree Road and the Western portion will be visible from the planned Perth - Darwin Highway.

The colour and style of dwellings and other structures could be visually compatible with the area and to this end developments should be coloured, painted or colour bond sheeting used. The use of grey galvanised or zinc/alum sheeting should be avoided unless as an integral part of a development such as a roof on a "country style" home or shielded from key sight lines.

Alteration to existing view scapes from Tee Tree Road can be kept to manageable levels through the listed actions.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.1.1.	Remnant vegetation and trees	<ul style="list-style-type: none"> <li>Development should include preservation of existing trees and vegetation by the sympathetic location of building envelopes.</li> <li>Trees should be preserved and protected from grazing pressure.</li> <li>Additional trees could be planted in strategic clumps to protect the views.</li> <li>Development should be restricted by a 100 metre setback from the soak.</li> </ul>
6.1.2	Setbacks	<ul style="list-style-type: none"> <li>Developments should be set back 100 metres from Tee Tree Road.</li> </ul>
6.1.3	Dwellings, fences and other developments are to be aesthetically compatible with the area.	<ul style="list-style-type: none"> <li>Restrictions could be placed on the use of visually non compatible materials.</li> </ul>

### 6.2 Subdivision Layout and Buffers

Lot sizes will depend on planning issues in addition to the land capability. Suggested lot sizes and potential land uses are shown on the attached maps.

It is preferred that smaller lots are clustered to assist servicing and buffer requirements. These should be located in areas which have lower soil capability but yet capable of pasture management through the use of groundwater. The best water sources could be utilised for



perennial horticulture and should thus be preserved on agricultural lots of 10 to 20 hectares to retain potential viable agricultural land.

A larger lot could be retained to protect sand resources in the south western corner but these resources are unlikely to be required for many years, and alternative resources occur on broad acre agricultural land to the west. In addition as this area of white sand is currently undergoing slow regeneration the best solution is likely to be to allow this process to continue. Therefore larger lots of 20 to 40 hectares are probably the best alternative. To preserve the sand a large lot could be retained as one broad acre lot.

One issue with lot sizes is the potential buffer between broad acre farmland and the creation of smaller lots. The land to the west, half of the south and east is uncleared remnant vegetation on soils of low land capability. It is unlikely that this vegetation will ever be cleared and will form a buffer.

The predominant winds are mainly from the east on summer mornings and south west in the afternoons. Winter winds are more variable.

A recent document relating to the potential conflict of horticulture and dwellings is the Draft Environmental Code of Practice for Vineyards, jointly prepared by Agriculture WA, Department of Environment Protection, Water and Rivers Commission, Grape Growers Association and the Wine Industry of WA.

The Draft Environmental Code of Practice recognises that buffers are related to aspects of the site conditions and land uses. Under spray drift, the Code of Practice quotes Spillman 1988 who stated that under research and subsequent modeling for aerial spray equipment (non-hooded) there was negligible drift 300 metres downwind. Based on that research a minimum distance was accepted as 300 metres where open ground applies but this can be reduced with the use of effective tree buffers and can be as low as 40 metres in the case of small vineyards. The Review of Agricultural Chemical Spray Drift, 1993, Coordinating Committee on Agricultural Chemicals, also recognised the potential for screening trees to reduce spray drift and the desirable use of "shelter belts" (p19).

As the only portion of land adjacent to broad acre farm land is in the south buffers are not necessary over the majority of Lot 102. In the south east the prevailing winds do not blow from the south and a setback of 100 metres for dwellings together with tree planting along this section of the boundary will provide protection.

	ENVIRONMENTAL ISSUE	MANAGEMENT
6.2.1	Subdivision design	<ul style="list-style-type: none"> <li>• Buffers are not required round most of the boundary because it adjoins remnant vegetation which is unlikely to be cleared.</li> <li>• A setback of 100 metres from the boundary in the south east together with tree planting along the cleared boundary will provide separation between broad acre land and any development.</li> <li>• Setbacks of 100 metre from roads are recommended.</li> <li>• Building envelopes should be located 100 metres from the soak in the central east.</li> </ul>



### 6.3 Flora and Fauna

The only remnant vegetation on the site is the scattered trees and the ridge tops. These should be retained and incorporated into any further plantings. Plantings and revegetation can form linkages as shown on the attached plans. Fauna will be advantaged by the planting of additional vegetation on newly created lots.

The natural regrowth on the leached sands in the west should be encouraged to regrow because these areas have very low soil capability and are highly susceptible to wind erosion. This is the current plan for these soils.

The wetland/soak should be protected.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.3.1	Remnant trees	• Trees should be protected from grazing pressure.
6.3.2	Remnant vegetation	• Roadside vegetation should be retained and local species used in any planting of the roadside.
6.3.3	Weeds	• As the site is cleared pasture weeds will not be an issue apart from the need for lot owners to control Declared weeds such as Skeleton Weed that has been recorded on the site in the past.
6.3.4	Fauna	• Fauna are likely to increase with development of small rural holdings.
6.3.5	Nearby remnant vegetation	• Cats are difficult to control and education is the most satisfactory method, through Shire of Chittering, local newsletters etc. • Dogs can be controlled through Council bylaws and public education.
6.3.6	Wetland/soak	• Development should be restricted by a 100 metre setback from the wetland/soak.

### 6.4 Water Quality - Lake Chittering

Lot 102 forms part of the catchment for the stream line running east to Lake Chittering, a System 6 nominated reserve. A soak on the central eastern boundary is the start of one tributary of this drainage line. The main issue is to prevent the level of nutrients or salinity from rising in this water flow and to ensure that sufficient water continues to flow from Lot 102 to maintain the stream and wetland functions.

Perennial horticulture associated with commercial operations and cottage industries will use potentially less water than annual horticulture and is better suited to the site, based on soil types, and will use significantly less nutrient usages.

Set backs from the soak should be 100 metres for developments and 50 metres for perennial horticulture. Water flows can be protected under the revised Rights in Water and Irrigation Act which will be implemented in the near future, where licences will be required to take water.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.4.1	Lake Chittering	<ul style="list-style-type: none"> <li>Water flows can be maintained at adequate levels through encouragement of perennial agricultural activities, the restriction on intensive annual horticulture and the proposed changes to the Rights in Water and Irrigation Act.</li> <li>Larger lot sizes on the leached sands, potential nutrient calculations and soil assessments, suggest that potential nutrient losses from the proposed land uses will be minimal if at all.</li> <li>There is no evidence of salinity on site and the underlying geology and hydrology suggest that salinity will not increase with development.</li> </ul>
6.4.2	Soak	<ul style="list-style-type: none"> <li>Covered under Lake Chittering above.</li> <li>Development are recommended to be restricted by a 100 metre setback from the soak with a 50 metre buffer for perennial horticulture.</li> </ul>

## 6.5 Heritage

Heritage issues concern the management of flora and mature trees.

	ENVIRONMENTAL ISSUE	MANAGEMENT
6.5.1	Archaeological sites	<ul style="list-style-type: none"> <li>There are no sites known to the Department of Aboriginal Affairs.</li> </ul>
6.5.2	Potential aboriginal sites	<ul style="list-style-type: none"> <li>Aboriginal sites are protected under the Aboriginal Protection Act.</li> </ul>

## 6.6 Nutrient Management - Effluent Disposal

Phosphorous is the main nutrient implicated in algal blooms in waterways. Nitrates can be bound to organic matter in the soil and lost through soil micro flora under anoxic conditions.

Nitrogenous substances are also taken up by vegetation or lost through volatilisation of ammonia. In leached sands with shallow groundwater, such as near the soak, the movement to the water table can be too fast for microbial activity to occur and thus setbacks are required.

The impact of nutrients is low in deep yellow sands for broad acre agricultural activities. In most areas, apart from the valley floors in the east and west, leached sands are underlain by yellow sand, or ferricrete, which increases the phosphorous retention capability. Phosphorous is adsorbed onto the yellow/brown goethite on the sand grains and in the ferricrete together with the 1 -- 3% clay within the earthy sands. Phosphate retention capability must consider the whole soil profile which on the higher elevations is up to 30 metres to the water table, reducing down slope. Even five metres of sand with a low phosphate retention (PRI 5) is capable of retaining 60 kg of phosphorous per m<sup>2</sup>.

The main issue with effluent disposal in subdivisions such as this is the design and placement of the systems to ensure that they work and provide adequate microbial purification rather than nutrient loss.

Yellow sands are recognised for their ability in managing nutrients in a number of published documents, for example SPP2 Peel-Harvey Estuary.

Appleyard S J 1993, *Explanatory Notes for the Groundwater Vulnerability to Contamination Maps of the Perth Basin*, Department of Minerals and Energy, 1993/6, shows the site as having Very Low Vulnerability to contaminate the deep aquifers of the Swan Coastal Plain.

Poinke established that the risk of phosphate loss from coloured sands such as those on the site are very effective at retaining phosphorous. Poinke et al, *Effect of Irrigated Horticultural Cropping on Groundwater Quality: Swan Coastal Plain, Western Australia*, CSIRO Water Resources Series No 2. Lantzke, 1997, *Phosphorous and nitrate loss from horticulture on the Swan Coastal Plain*, Agriculture WA

All soils are capable of supporting conventional effluent disposal systems with the exception of the small low lying areas adjacent to the soak, and will comply with the Government Sewerage Policy (metropolitan area).

There should be a 100 metre setback from the soak which complies with Water and Rivers Commission recommendations.

#### Nutrient Loadings

The leached white sands have stocking rates of less than 1 DSE (one dry sheep equivalent per hectare if maintained on site all year round) if they are dry and not located on the lower elevations where summer moisture is available. Yellow sands have a slightly higher stocking rate of 3 to 5 depending on the soil, geomorphic position and availability of water for pasture management.

The current input of nutrients will be predominantly from fertiliser applications and legume pasture.

Land Use	Kg/P/hectare/year	Kg/N/hectare/year
Carnations	80	1 920
Vegetables	80 - 340	400 - 900
Citrus	30 - 73	68 - 102
Olives	20 - 40	40 - 80
4 DSE/ha	6	40
1 horse	11	60
Domestic waste water of one household	5 - 6	18

Agriculture WA, 1990, *Horticulture and the environment*, Misc Pub 20/90.

Lantzke N, 1997, *Phosphorous and nitrate loss from horticulture on the Swan Coastal Plain*, Agriculture WA, Misc Pub 16/97.

Estimations of the impact of the nutrient loading can only be made based on denitrification, volatilisation of ammonia, recycling, uptake by vegetation and phosphate absorption by clays and sesqui-oxides.

The greatest input of phosphorous can come from the keeping of stock in confined areas such as a stable, or intensive annual horticulture. This may lead to soil degradation through wind erosion and dust generation and is not recommended.

Potential loss of nutrients from pasture and less intensive/perennial horticulture such as grapes, depends on the fertiliser application regime and the quality of the soils. This would not normally lead to nutrient losses, with the exception of applications applied to the lower lying leached sands.

A typical conventional septic system releases 5.5 kg P/year and 18 kg N/year. However allowing for six chickens, a dog and cat and a 250 m<sup>2</sup> area of fertilised horticulture, a further loading of 12.3 kg N/year and 5.2 kg P/year can be added for the dwelling area. (Data from Select Committee on Metropolitan Development and Groundwater Supplies, Legislative Assembly 1994 and Nitrate management in the Jandakot UWPCA, Dames and Moore, undated). One horse is estimated at 60 kg N/year and 11 kg P/year.

Typical nutrient loadings that can be expected from the various soil types

Soil type	Possible lot size and activity	Nitrogen loading per hectare	Phosphorus loading per hectare	Likely nutrient scenario
Yellow sands	Current maximum stocking rate 5 DSE per hectare	50.30 kg N/ha/year	7.35 kg P/ha/year	Unlikely to be nutrient export
Leached sands with yellow sand or ferricrete at depth	2 ha conventional septic system 1 ha cottage garden	65.2 kg N/ha/year	20.4 kg P/ha/year	Unlikely to be nutrient export
Yellow sands	Estimated average potential stocking rate 4 - 5 DSE per hectare for a 3 hectare block and conventional septic system.	30.1 kg N/ha/year	7.2 kg P/ha/year	Unlikely to be nutrient export
Yellow sands	10 hectares olives, no stock and conventional septic system.	83.0 kg N/ha/year	41.1 kg P/ha/year	Unlikely to be nutrient export.
Yellow sands	20 hectares no stock and conventional septic system.	81.5 kg N/ha/year	40.6 kg P/ha/year	Unlikely to be nutrient export.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.6.1	Effluent disposal	<ul style="list-style-type: none"> <li>All soil types are suitable for conventional septic systems with the exception of the area adjacent to the soak</li> <li>There should be no more than one effluent disposal unit per lot.</li> </ul>
6.6.2	Land use and stocking	<ul style="list-style-type: none"> <li>Intensive agricultural pursuits such as piggeries and feed lotting should not be permitted.</li> <li>Any stocking should be to Agriculture WA recommendations.</li> <li>Lots sizes suggested take into account the potential for nutrient loss and Agriculture WA stocking rates.</li> </ul>

## 6.7 Drainage, Salinity and Flood Risk

All areas are well drained.

There is little potential for salinity increases in the soak on the eastern boundary.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.7.1	Potential flooding	• There is no risk of flooding.
6.7.2	Salinity	• No action required.

## 6.8 Mature Trees

Trees should be protected and developments located at sufficient distance to ensure dwellings are not subjected to risk associated with falling limbs or trees blown over.

	ENVIRONMENTAL ISSUE	MANAGEMENT
6.8.1.	Mature trees	• Developments should be located at sufficient distance to ensure dwellings are not subjected to risk associated with falling limbs or trees blown over.

## 6.9 Wind and Water Erosion

The potential for wind erosion is high on the sands, although yellow sands are capable of growing better pasture which must be maintained throughout the year. Wind erosion can also be reduced through the use of irrigation, wind breaks, planting perennial species such as tagasaste, and stock matched to the quality of pasture. Sometimes dust can be more of a problem than actual erosion when for example a horse is kept in a small paddock or stables.

In the west on the leached white sands indigenous vegetation is being allowed to regrow as a means of managing soil erosion. This is a successful method of land management, but does take the area out of production.

Potential water erosion is low apart from non wetting sloping sands.

	ENVIRONMENTAL ISSUE	MANAGEMENT
6.9.1	Soil erosion	<ul style="list-style-type: none"> <li>• Adequate vegetation cover should be maintained on all soils throughout the year.</li> <li>• Stocking rates should be matched to pasture conditions.</li> </ul>

## 6.10 Fire Control

Fire Control falls under the Bush Fires Control Act (as amended) and the Shire of Chittering.

Fire management will depend on lot sizes and permitted land uses. As the site is cleared with scattered trees, fire risk is reduced, although grass fires can produce high hazard given the right conditions. Fire risk is normally reduced through subdivision design, reduction in fuel by burning off or other means, the design and maintenance of strategic firebreaks, the availability of machinery and water to fight fires and the provision of emergency escapes.

The fire risk to property will increase following subdivision so it is important that the risk is minimised. Existing and new water sources will be able to be used for fire fighting and the roads will act as firebreaks together with the creation of new firebreaks as required.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.10.1	Fire Risk	<ul style="list-style-type: none"> <li>Increased access, firebreaks and water points will assist fire reduction risk.</li> <li>The roads will act as fire breaks.</li> </ul>

## 6.11 Social Impact

Social impact of the proposed sub division will be minimal but will be positive by bringing additional people to Bindoon/Chittering.

There is potential for this site to be developed for cottage industries, craft and other small scale tourism activities which will be valuable additions to the Bindoon/Chittering area.

	ENVIRONMENTAL FACTOR	MANAGEMENT
6.11.1	Social Impact	None required.



## 7.0 CONCLUSIONS

Lot 102 lies approximately 7.0 km south of Bindoon townsite, on the southern side of Tee Tree Road. The western boundary of Lot 102 will be slightly altered and moved eastwards when the planned Perth Darwin Highway is constructed. This will reduce the size of the lot by perhaps 40 hectares.

Lot 102, therefore, with its location adjacent to the proposed Perth Darwin Highway and proximity to Bindoon, is well placed for subdivision into a creative range of lots and landuses.

The subdivision of Lot 102 Tee Tree Road, Chittering has the potential to be a valuable addition to the local community and tourism industry. The soils and supplies of water provide high capability for some new and creative activities on smaller lot sizes provided the land management issues on the less capable soils are met.

Parts of Lot 102 are capable of sustaining small rural holdings ranging in size from 2.0 – 5.0 hectares in a cluster with the balance taken up by larger lots. The best agricultural land is in the east because of available water and could be protected in larger 10 and 20 hectares lots. On the other hand leached white sands are better left to allow regrowth of indigenous vegetation as is occurring.

Other lots are better suited to hobby, perennial horticulture or conservation lots because only domestic/stock supplies of groundwater are likely to be available.

The management actions listed under Environmental Management, Geotechnical Considerations, and the opportunities and constraints, are to provide guidance for subdivision design, and the development of conditions.

Any environmental issues identified can be managed through subdivision design and normal conditions that are placed on subdivision and developments.

  
Lindsay Stephens

Soil Characteristics	Ferricrete and Gravel	Leached Sand over Ferricrete	Earthy Yellow Sand	Yellow Sand	Leached White Sand
Location	On the higher elevations and ridges	Flanks or slopes adjacent to the ridges	Upper catchment	Upper catchment	Gentle valleys
Topsoil Texture	Yellow brown gravel and duricrust	Grey quartz sand	Grey quartz sand and yellow sand	Grey quartz sand and yellow sand	Grey quartz sand
Subsoil Texture	Yellow brown gravel and duricrust over loam-clays at depth	White sand over gravel and duricrust at depths of up to 1000 mm	Cream sand over yellow sand at shallow depth	Cream sand over yellow sand at shallow depth	Leached white sand over yellow/orange/brown sand at 1 meter or so.
Stone	Duricrust a major component of ridge tops	Nil	Nil	Nil	Nil
Gravel	Major component	Minor	Minor gravel	Minor gravel	Minor
Depth to Bedrock	Ferricrete over deep sediments	Ferricrete at < 1 metre over deep sediments duricrust may occur at 1 or 2 metres	Deep sediments	Deep sediments	Deep sediments
Hardpan	Ferricrete	Ferricrete at depth	Traffic hardpans possible	Traffic hardpans unlikely	Unlikely to develop
PH	Acidic to neutral	Acidic to neutral	Acidic to neutral	Acidic to neutral	Acidic to neutral
Salinity	Low	Low	Low	Low	Low
Soil Permeability	High	High	High	High	High
Soil Shrinkage	Very low	Very low	Very low	Very low	Very low

Land Qualities	Ferricrete and Gravel	Leached Sand over Ferricrete	Earthy Yellow Sand	Yellow Sand	Leached White Sand
Slope	Gentle	Gentle to moderate	Gentle to moderate	Gentle	Gentle
Slope Stability	High	High	High	High	High
Wind Erosion Risk	Low	High	Moderate to high	Moderate to high	Moderate to high
Water Erosion Risk	Low	Low	Low	Low	Low
Drainage	Well drained	Well drained	Well drained	Well drained	Well drained
Moisture Availability	Very low	Very low	Moderate	Low - moderate	Very low
Water Logging	Nil	Nil	Nil	Nil	Adjacent to the soak
Wetability	Moderate	Non wetting at times	Non wetting at times	Non wetting at times	Non wetting at times
Flood Risk	Nil	Nil	Nil	Nil	Nil
Surface Water - Availability/Quality	Nil	Nil	Nil	Nil	Only at soak
Ground Water - Availability/Quality	Low potential	Low potential	Low potential	Low to moderate	Low to moderate
Salinity Risk	Low	Low	Low	Low	Low
Microbial Purification	Moderate to high based on soil depth	Moderate to high based on soil depth	Moderate to high based on soil depth	Moderate - high	Moderate to low
Water Pollution Risk	Low	Low	Low	Low	Low - moderate
Soil Profile; Phosphate absorption	High on the proportion of iron oxides and depth of soils	High based on ferricrete at depth	Moderate to high based on depth of yellow sand and presence of clay	Moderate based on depth of yellow sand	Low based on yellow sand at depth
Soil Profile; Nitrogen Removal	Low to moderate depending on the degree of anoxic conditions	Low to moderate depending on the degree of anoxic conditions	Moderate depending on the degree of anoxic conditions	Low to moderate depending on the degree of anoxic conditions	Low to moderate depending on the degree of anoxic conditions
Existing Degradation	Largely uncleared	Cleared	Cleared	Cleared	Cleared



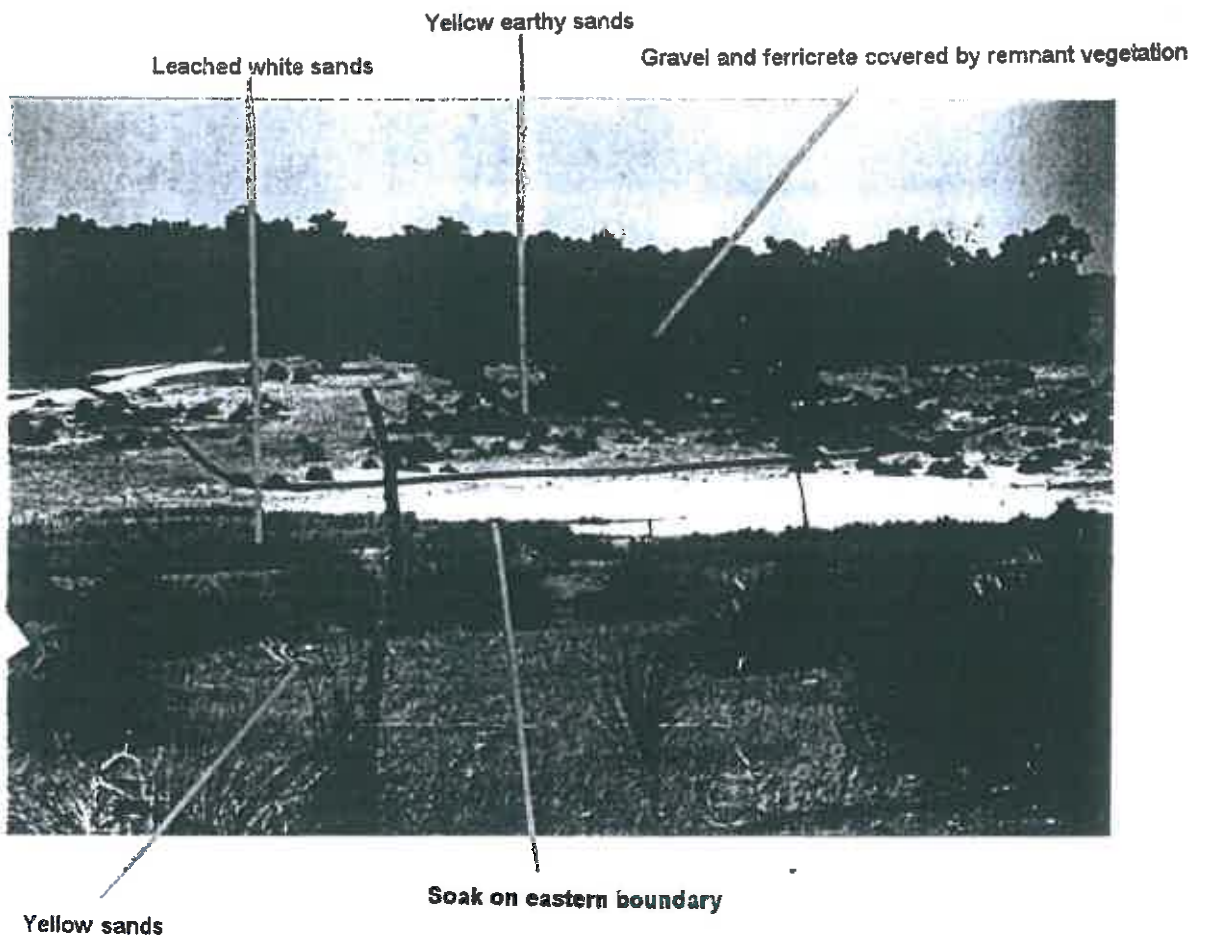
General view across the central north east of Lot 102



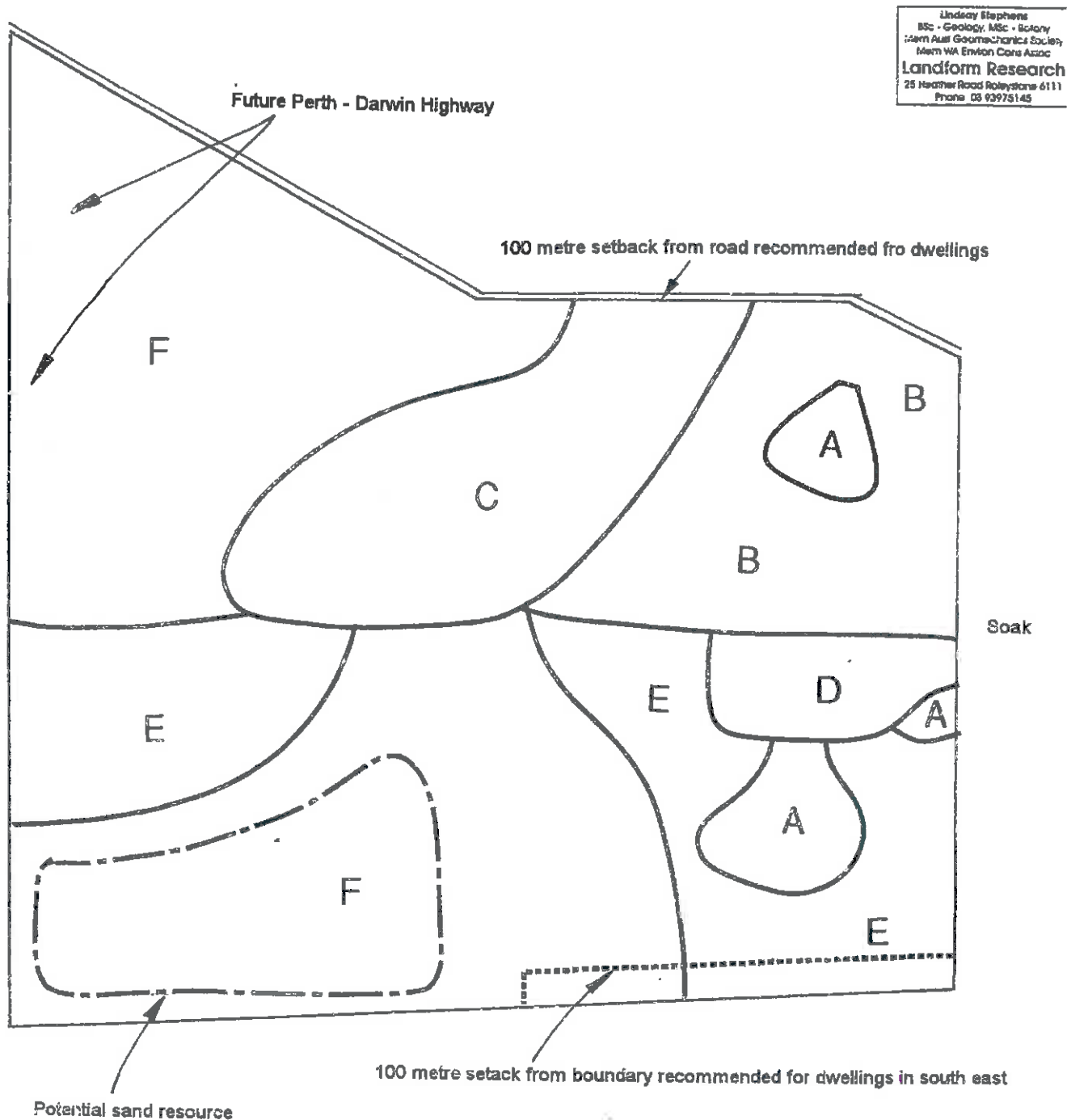
Regrowth of native vegetation in the south west



Land Capability, Lot 102, Tee Tree Road, Chittering



Yellow sands that underly most of the site



## POTENTIAL LAND USES

### Lot 102 Tee Tree Road, Bindoon

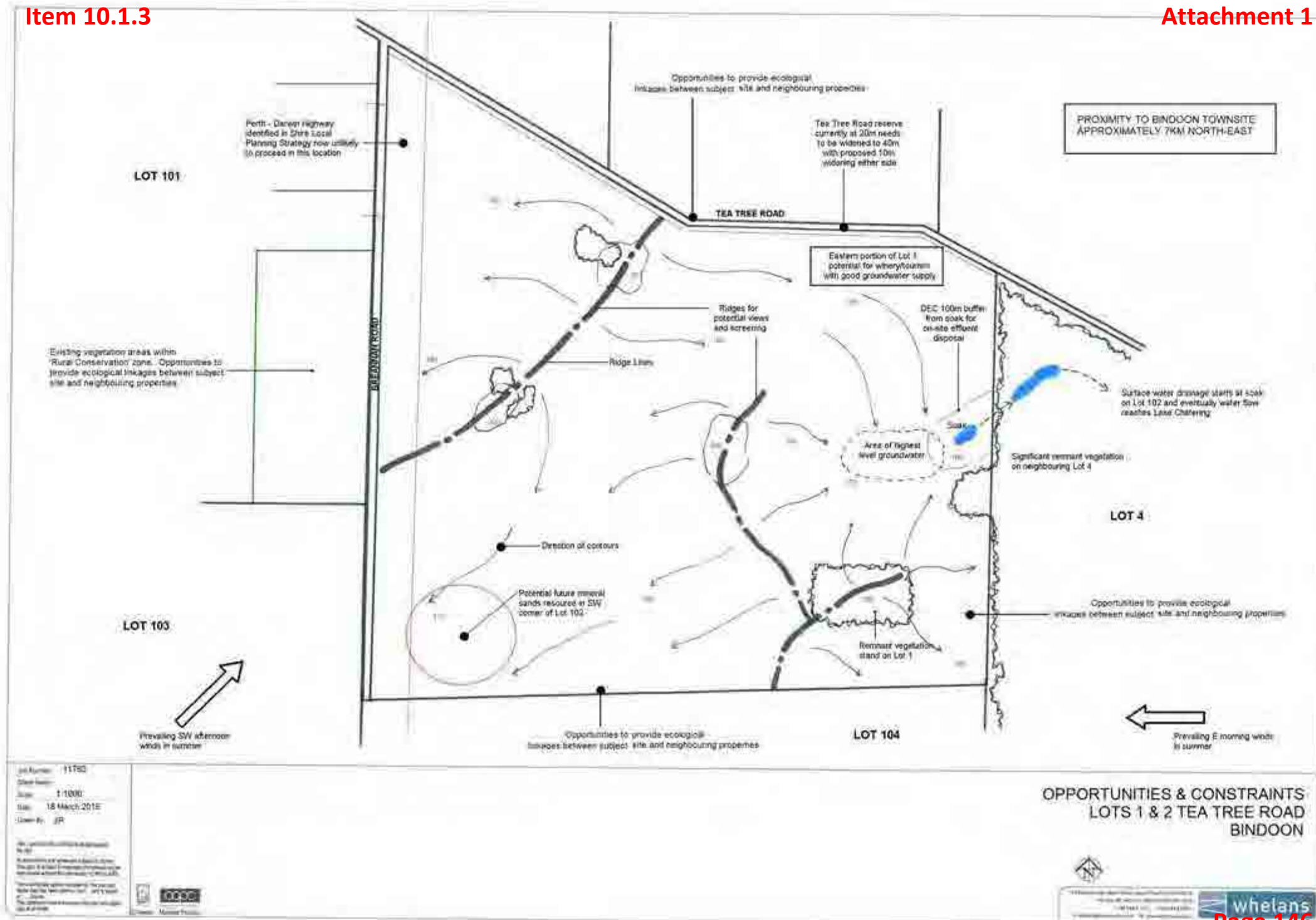
	Possible Land Use	Soil Type	Possible Lot Sizes	Water Availability
A	Conservation	Ferricrete rock and gravel	< 5 ha	Very low
B	Rural Living	Yellow sand	2 - 5 ha	Water may be available and should be restricted to 1 500 kL per lot
C	Perennial Horticulture/hobby	Earthy and yellow sands	10 ha	Stock water, insufficient for irrigation
D	Perennial horticulture	Earthy and yellow sands	10 - 20 ha	Water available for irrigation of crops. Perhaps >10 ha perennial horticulture possible
E	Hobby	Yellow sands and sand over ferricrete	5 - 10 ha	Water may be available and should be restricted to 1 500 kL per lot
F	Large hobby and conservation lots	Leached sands and sand over ferricrete	10 - 20 ha	Stock water likely to be available



**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## APPENDIX 2 – OPPORTUNITIES AND CONSTRAINTS MAP



**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## APPENDIX 3 – SPRING FLORA SURVEY

**Lot 1 and 2 Tea  
Tree Road,  
Bindoon WA**

**Spring Flora and Vegetation Survey**



Kathryn Kinnear

Bio Diverse Solutions

15/3/2012



## DOCUMENT CONTROL

### TITLE

Lot 1 and 2 Tee Tree Road Bindoon Spring Flora and Vegetation Syrvey

Author (s) : Kathryn Kinnear

Reviewer (s) :

Job No. : WHEL014

Client : Marou Property Development Pty Ltd

### REVISION RECORD

REVISION	SUMMARY	REVISED BY	DATE
DRAFT	CLIENT REVIEW	WHELANS	14/2/2012
FINAL	CLIENT		15/3/2012



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## 1. Introduction

Bio Diverse Solutions was commissioned to undertake a Spring Flora and Vegetation Survey of Lot 1 and 2 Tee Tree Road Bindoon as part of investigations requested from Whelans in support of a proposal to rezone a portion of the land for Rural Residential purposes. The Spring Flora and Vegetation Survey is required by the Western Australian Planning Commission (WAPC) to assist with the rezoning process. The survey is aligned to Environmental Protection Authority (EPA) *Guidance Statement number 51: Terrestrial Flora and Vegetation Surveys*.

This report details the vegetation types on site, provides a flora inventory for the site, an assessment of Threatened Flora, and recommendations for management of the proposed land use.

### 1.1. Alignment to Legislation, Policy and Guidelines

In assessing the property, Bio Diverse Solutions has prepared this report aligned to the following legislation, please refer to Table 1 below.

**Table 1–Government Legislation Applicable to the Proposal**

Legislation	Responsible Government Agency	Aspect
<i>Agricultural and Related Resources Protection Act 1976</i>	Department of Agriculture, Western Australia	Weeds and feral pest animals
<i>Conservation and Land Management Act 1984</i>	Department of Environment and Conservation	Wetlands/Flora and fauna / habitat /weeds / pests / diseases
<i>Environmental Protection Act 1986 (Part IV)</i>	Office of the Environmental Protection Authority	Assessment and Management Environmental Impact
<i>Environmental Protection (Clearing of Native Vegetation) Regulations 2004</i>	Department of Environment and Conservation	Clearing of native vegetation
<i>Local Government Act 1995</i>	Shire of Chittering	Development approvals, Building approvals
<i>Soil and Land Conservation Act 1945</i>	Department of Agriculture and Food	Protection of soil resources
<i>Wildlife Conservation Act 1950</i>	Department of Environment and Conservation	Protection of indigenous wildlife
<i>The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).</i>	The Commonwealth Department of Sustainability, Environment, Water, Population and Communities	Protection of Vulnerable and Threatened species of national significance
<i>Country Areas Water Supply Act 1947 (WA) (CAWS Act).</i>	Department of Water, Water Corporation WA	Protection of water source areas and drinking water catchments.

### 1.2. Spring Flora and Vegetation Survey Method

This study was undertaken in October 2011 in spring conditions and has included desktop analysis and site survey of the site vegetation.

Desktop analysis included a number of resources reviewed, including:

- Database searches of the DEC Threatened Flora Database and review of Threatened Flora plant species for location, habitat and growth form;
- General texts including Native Vegetation WA (Shepherd *et al* 2002), A Biodiversity Audit of WA (Hearn *et al.*, 2002), and Local Biodiversity Strategy Shire of Chittering (SoC, 2010);
- Public available databases (Florabase, SLIP, WALIS, ASRIS etc);
- Review of species form, growth and habitat at the DEC State herbarium; and
- Overlay of GIS datasets (DEC Pre-European Vegetation extent and Department of Water (DoW) 250K Hydrogeology).

Site Survey included:

- The survey area was approximately 484 ha, with the majority of the site cleared. Remnant vegetation patches were traversed on foot and intensively sampled, a list of dominant flora species present (native and exotic) was compiled as seen; samples or photographs were collected for unfamiliar species;
- Threatened Flora searches as listed by DEC was undertaken in known locations and probable habitat types;
- Specimens collected were pressed, dried and identified;
- Specialist texts were used to identify specimens (Wheeler *et al*, 2002) with some checked against examples in the reference herbarium. The authority for taxonomic names was DEC's Florabase website as of November 2011;
- Assessment of vegetation types present and vegetation condition; and
- Herbarium verification for Threatened Species as required.

Vegetation condition was assessed to the following criteria:

- Pristine: Pristine or nearly so, no obvious signs of disturbance;
- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species;
- Very good: Vegetation structure altered, obvious signs of disturbance;
- Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate to it;
- Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management; and
- Completely Degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species.

(Keighery, 1994)

### 1.3. Other documents relating to this plan

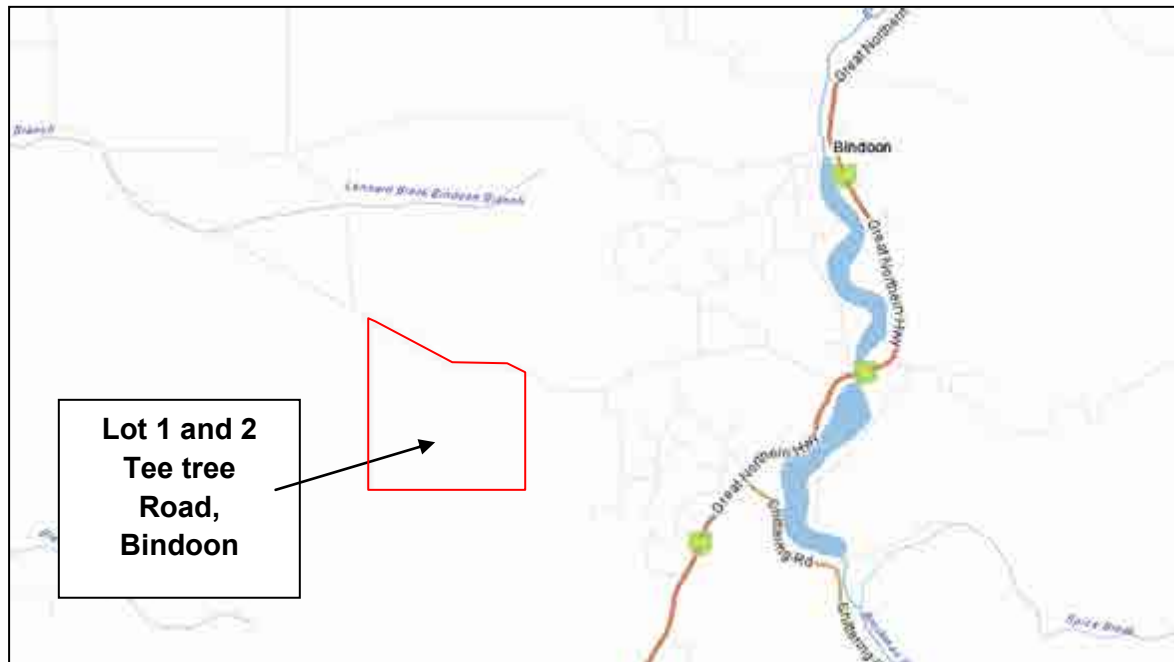
Other unpublished documents that have been prepared for this development proposal which should be consulted when reading this plan include:

- Outline Development Plan -Whelans (2012) ?
- Land Capability Report – Landform Research (2000)
- Fire Management Plan – Bio Diverse Solutions (2012)
- Stormwater Management Plan – Whelans/SMEC (2012)

## 2. Site details

The subject site is located south of Tee Tree Road and east of Brennan Road, approximately 10 km's south of Bindoon town site in the municipality of the Shire of Chittering. The subject site is a 48ha rural lot which has been used for grazing of stock. Please refer to Figure 1 below - Locality Map, and Site Location Mapping Appendix A.

**Figure 1 – Subject site locality**



### 2.1. Development proposal

The applicant is seeking to rezone the subject area for 'Rural Retreat'. The "Spring Flora and Vegetation Survey" has been undertaken prior the WAPC assessment for rezoning, to verify the floristic conditions on site and gives recommendations for any proposed development.

The development proposal includes the creation of 44 Rural Retreat Lots. In creating the subdivision the developer proposes to implement "Vegetative Corridors" to increase linkages to remnant vegetation from the north-south and east-west.

Please refer to the Outline Development Guide Plan as provided by Whelans, Appendix B.

### 3. Desktop Assessment – Regional Setting

#### 3.1. Current site land use

The site is currently 2 rural lots of predominantly cleared paddocks with grasslands and small isolated patches of remnant vegetation, newly installed vineyards and tagasaste plantation. Historically the subject area has been used for sheep and cattle grazing. An abandoned shack exists in 1 (south west corner) and some shed buildings are located in Lot 2 associated with the rural activities. Please refer to Photograph 1 and 2 below.



**Photograph 1** – View of abandoned shack in Lot 1 (south west of subject area)



**Photograph 2** – View of shed infrastructure in Lot 2, associated with rural activities.

#### 3.2. Climate

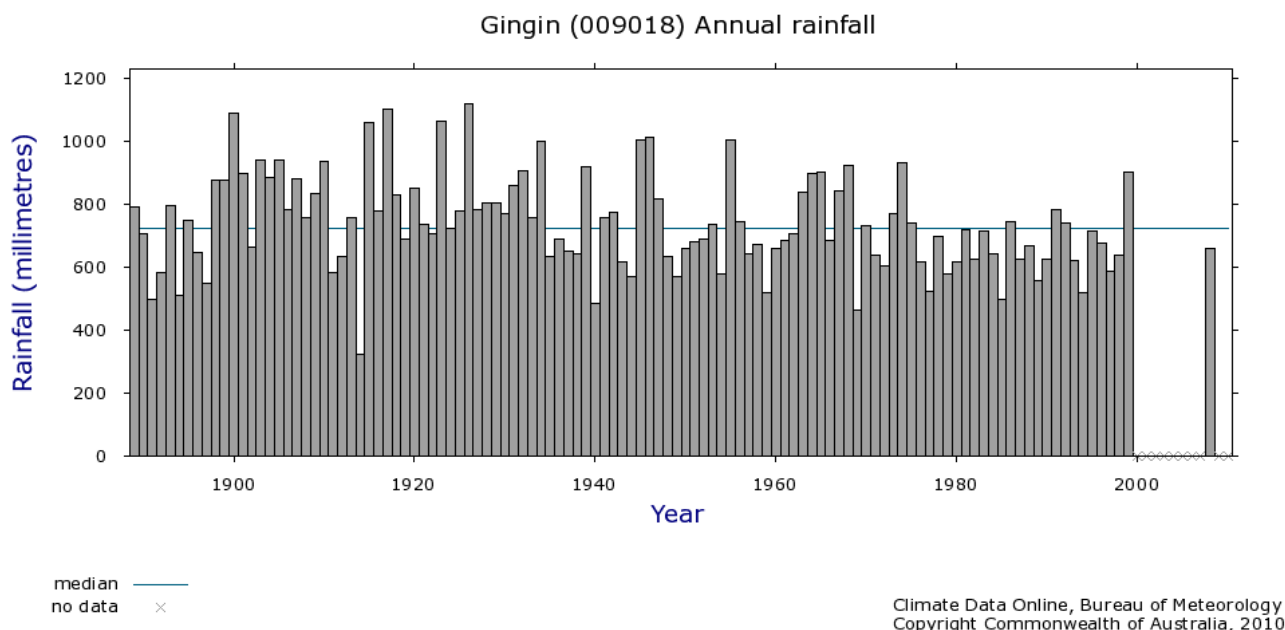
Bindoon has similar climate to Perth (75 Km away) and thus has been described as per Bureau of Meteorology descriptions of Perth. Perth experiences a Mediterranean climate, characterised by hot, dry summers and mild, wet winters. These seasons extend into the autumn and spring months, which are transitional periods between the main seasons.

The climate of the region is strongly influenced by the position of the axis of the band of high pressure known as the sub-tropical ridge, and in the warmer months by the development in the easterlies to the north of the ridge of a trough of low pressure near the West Coast. For much of the year the ridge is located to the south allowing the east or southeasterly winds to prevail. During the cooler months the ridge periodically moves to the north allowing cold fronts to pass over the west coast and deliver much of the annual rainfall. Sometimes these fronts interact with tropical cloud bands from the northwest and this can enhance the amount of rainfall produced.

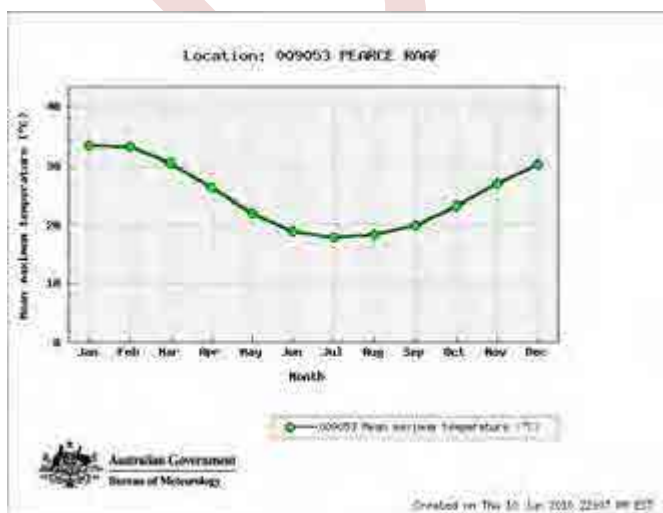
##### 3.2.1. Rainfall

Of the annual mean rainfall of 869 mm, which occurs on 119 rain days, about 80% usually falls between May and September. Rain occurs on four days out of every seven on average during winter. Flooding is rare in Perth, however heavy rain may be produced by strong winter cold fronts or, less frequently, by summer storms or, more rarely, by decaying tropical cyclones. The highest daily rainfall is 120.6 mm recorded on 9 February 1992.

In contrast to winter rainfall, the mean summer rainfall is just 36 mm on an average of 10 rain days. It is not unusual for there to be extended dry periods during the warmer months. Please refer to Gingin Annual Rainfall graph over the page (Figure 2).

**Figure 2 – BoM Rainfall for Gingin Station****3.2.2. Temperature**

Mean monthly air temperature range from 31°C in February to 18°C in July and August. Summer maximum temperatures are strongly dependent upon the arrival time of the reliable sea breezes. On some days the difference between the maximum temperatures on the coast and the eastern suburbs may exceed 10°C. Heatwaves are associated with strong easterly winds and the late arrival or absence of the sea breeze. The highest temperature ever recorded is 46.2°C, however, the temperature exceeds 40°C on only three days per year on average. The average minimum temperature ranges from just 8°C in July and August to 17°C in January and February. Temperatures below 5°C are not uncommon during any of the winter months. The lowest temperature ever recorded at Perth Airport is -1.1. Please refer to average temperatures below for Gingin (40km away), Figure 3.

**Figure 3 – Average Temperatures BoM**



### 3.2.3. Wind

Winds are mainly easterly but varied in the warmer months by reliable afternoon sea breezes from the south west and in the cooler months by the westerlies that are associated with the bulk of the annual rainfall. Despite the occurrence of strong winds or gales, average wind speeds in winter are considerably lighter than in summer.

### 3.2.4. Climate Change

Climate change is expected to impact on the future rainfall pattern of the area. It is recognised that the average rainfall has already declined by 20%-30% over the past few decades and that the long term impact of climate change may lead to a shift in rainfall, as well as dryer climatic conditions for the region. The long term changes are predicted to impact on the flora, fauna and water availability for the region. (Climate Commission 2010)

The Climate Commission (Climate Commission 2010) estimates that  
*"...Rainfall patterns in Western Australia have changed over the last 40 years. There is significant evidence that climate change has contributed to the marked drying trend in the southwest of the state."*

The construction of the proposed development is not predicted to be affected by sea-level rise, however could be affected from increased intensity rainfall events or extended drying periods. The findings from the Land Capability Report (Landform Research 2000) recommends 100m setback from the soak in the central east area. This will ensure that any flooding or high rainfall periods do not affect infrastructure and that any watershed from the development from increased intensity rainfall events does not affect the Chittering River catchment area.

### 3.3. Topography and Slope

The subject site is located in an undulating landscape on the Dandaragan Plateau with the average slope for the site (assessed as an average over 4 slopes 100m in distance) calculated to be less than 5° and range between 1° and 3°. One metre contours indicate there are 2 hills in the western portion up to 201m AHD and one dominant ridge in the south east of the subject site up to 208m AHD. The lowest elevation of the site is in the east along the formation of a creek upper catchment at 168m AHD.

### 3.4. Geology and Site Soils

Australian Geoscience Mapping indicates the site is from the Pleistocene (Recent) Period (**Qpo**): **colluviums, soil and undifferentiated sand cover over laterite of Coastal plain, includes minor alleviated areas** (AGM, 1984). The subject site lies west of the Darling Scarp, within the Dandaragan trough of the Perth basin landform system.

### 3.5. Vegetation Types

The subject lies within the Swan IBRA bioregion. This bioregion is comprised of *"low lying coastal plain, mainly covered with woodlands. It is dominated by Banksia or Tuart on sandy soils."* The area is located within the SWA1- Dandaragan Plateau *The plateau is bordered by Derby and Dandaragan Faults. Cretaceous marine sediments are mantled by sands and laterites. Characterised by Banksia low woodland, Jarrah - Marri woodland, Marri woodland, and by scrub-heaths on laterite pavement and on gravelly sandplains.* (Hearn et al., 2002).

The vegetation has been mapped on a broad scale by Beard (Shepherd et al 2002) in the 1970's, where a system was devised for state-wide mapping and vegetation classification based on geographic, geological, soil, climate structure, life form and vegetation characteristics (Sandiford and Barrett 2010).

A GIS search of Beards vegetation classification for general area places the site within 2 broad Vegetation Associations for the site:



**System Association: Gingin 1027**

- Vegetation Association Number: 1027
- Vegetation Description: *Mosaic: Medium open woodland; jarrah & marri, with low woodland; banksia/Medium sparse woodland; jarrah & marri.*

(Source DEC Pre-European Vegetation GIS dataset)

**3.6. Threatened Flora Search**

A search of the DEC Threatened Flora Database within 5km of the subject area was undertaken a summary shown in Table 2 below and as provided by DEC in Appendix C.

**Table 2 – Threatened Flora Database Search Summary**

SPECIES	CONSERVATION CODE
<i>Acacia drummondii</i> subsp. <i>affinis</i>	3
<i>Acacia pulchella</i> var. <i>reflexa acuminata bracteole variant</i> (R.J. Cumming 882)	3
<i>Adenanthos cygnorum</i> subsp. <i>chamaephyton</i>	3
<i>Astroloma</i> sp. <i>Cataby</i> (E.A. Griffin 1022)	4
<i>Chamelaucium</i> sp. <i>Gingin</i> (N.G. Marchant 6)	T
<i>Cyanicula ixioides</i> subsp. <i>candida</i>	2
<i>Gastrolobium nudum</i>	2
<i>Grevillea corrugata</i>	T
<i>Hypocalymma</i> sp. <i>Tea Tree Road</i> (O. Davies OD 171)	1
<i>Oxymyrrhine coronata</i>	4
<i>Ptychosema pusillum</i>	T
<i>Tetradlea pilifera</i>	3
<i>Verticordia rutilastra</i>	3

Under the *Wildlife Conservation Act 1950*, the Minister for the Environment may declare species of flora to be protected if they are considered to be in danger of extinction, rare or otherwise in need of special protection. Schedules 1 and 2 deal with those that are threatened and that are presumed extinct, respectively.

Definitions of Threatened Flora under the *Wildlife Conservation Act 1950* are as follows:

- **T: Threatened Flora (Declared Rare Flora — Extant)**  
Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such (Schedule 1 under the *Wildlife Conservation Act 1950*).  
Threatened Flora (Schedule 1) are further ranked by the Department according to their level of threat using IUCN Red List criteria:  
CR: Critically Endangered – considered to be facing an extremely high risk of extinction in the wild  
EN: Endangered – considered to be facing a very high risk of extinction in the wild  
VU: Vulnerable – considered to be facing a high risk of extinction in the wild.
- **X: Presumed Extinct Flora (Declared Rare Flora — Extinct)**  
Taxa which have been adequately searched for and there is no reasonable doubt that the last individual has died, and have been gazetted as such (Schedule 2 under the *Wildlife Conservation Act 1950*).

Taxa that have not yet been adequately surveyed to be listed under Schedule 1 or 2 are added to the Priority Flora List under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened flora or fauna.

Taxa that are adequately known, are rare but not threatened, or meet criteria for Near Threatened, or that have been recently removed from the threatened list for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring. Conservation Dependent species are placed in Priority 5.

- **Priority 1** - Poorly known Taxa. Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. Priority 1 taxa may include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey;
- **Priority 2** - Poorly Known Taxa. Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey;
- **Priority 3** - Poorly Known Taxa. Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey;
- **Priority 4** - Rare Taxa. Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years; and
- **Priority 5** - Taxa that are not threatened but are subject to a specific conservation program, the cessation of which would result in the taxon becoming threatened within five years.

Based on the desktop assessment that has been conducted above, several Priority and Threatened Species could be present within the vicinity of Lot 1 and 2 Tee Tree Road Bindoon. A detailed site search was undertaken to assess the site for the above listed flora species (Table 2, Page 10).

#### 4. Site Assessment

Site flora survey and intensive Threatened Flora survey was undertaken at the proposed development areas and remnant vegetation areas, this was undertaken on the 13<sup>th</sup> October 2011. This is the spring flowering period, and considered the appropriate time of year to capture most flowering species for positive identification.

##### 4.1. Methodology

The survey area is defined as Lot 1 and 2 Tee Tree Road Bindoon, with the whole property mapped for vegetation types and intensive flora sampling for Threatened Flora in possible habitat types and remnant vegetation areas.

The remnant vegetation areas were traversed on foot and a list of dominant flora species present (native and exotic) was compiled as seen; samples or photographs were collected for unfamiliar species. Specimens collected were pressed, dried and identified. Specialist texts were used to identify specimens (Wheeler *et al*, 2002) with some checked against examples in the reference herbarium at the DEC Albany Regional Herbarium for confirmation. The authority for taxonomic names was DEC's Florabase website as of November 2011.

Intensive survey was undertaken for Threatened Flora species, with follow up identification at the DEC State Herbarium. Areas were searched for Threatened Flora adjacent to known populations and likely habitat for specific species. Vegetation condition was assessed during the field survey. Vegetation condition was assessed using the vegetation condition scale as per Keighery (1994).

##### 4.2. Vegetation

Detailed vegetation inventory was undertaken in the vegetation types identified on site. A total of 149 species was identified within 3 vegetation types. The vegetation types are shown below in Table 3.

**Table 3 – Vegetation Types Identified on site**




Vegetation Unit	Beards Vegetation Association	Site Unit Description	Photograph
Medium woodland; jarrah-marri (EmCc)	965	Medium woodland of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i>	

Table 3 cont.

Vegetation Unit	Beards Vegetation Association	Site Unit Description	Photograph
<b>Mosaic Medium open woodland: jarrah, marri &amp; banksias (EmCcBa),</b>	1027	Medium open woodland: Jarrah & Marri, with low woodland Banksia/sparse woodland jarrah/marri	
<b>Cleared paddock areas</b>	N/A	Open paddocks, cleared of native vegetation, occasional paddock trees Jarrah & Marri,	

A map of the vegetation types identified on site is shown in Appendix D. Descriptions and Photographs of each vegetation type are given in the following sections.

#### 4.3. Marri Jarrah (EmCc)

Shepard *et al.* (2002) estimate the pre-European extent of 965: Medium woodland; Jarrah – Marri was 114,948ha, with a current area of 5,415ha. It is estimated that 36% of this vegetation type is represented in national parks, nature reserves and state forest and 10.2% is represented in other reserves. The subject site comprised of approximately 20% of this vegetation type which was identified as small isolated remnant areas which had not been previously cleared in the eastern side of the subject area. Please refer to Appendix D– Vegetation Mapping.

The dominant overstorey species in this vegetation type are: *Eucalyptus marginata*, jarrah; and *Corymbia calophylla*, marri. These species form a mosaic of Medium to Low Open Forest with tree height between 15 to 30m. Jarrah comprises between 30-70% of the canopy cover and marri comprise 2-10% canopy cover. Banksia grandis, *Allocasuarina humilis*, occasional *Eucalyptus tottiana* (Coastal Blackbutt), *Banksia sessilis* var. *Sessilis*, *Xanthorrhoea preissii* and *Hakea lissocarpa* were the dominant second storey species within this vegetation complex, and represent 10-30% vegetation cover. These species were shrubs 1- 2m. The midstorey species were generally less dominant due to the vegetation being grazed. Please refer to Photographs 5 and 6.





**Photograph 5** – View along eastern boundary of subject site in Jarrah/Marri vegetation type, Good Condition.



**Photograph 6** – View of Jarrah/Marri in south east of subject site, the largest remnant patch, Good condition.

Other species identified within this cover class (1m to greater than 2m in height) include: *Anigozanthos humilis*; *Austrodanthonia occidentalis*, *Baeckea grandiflora*; *Caladenia flava* *Drosera erythrorhiza*; *Elythranthera brunonis*, *Haemodorum venosum*; *Kennedia prostrata*, *Lomandra caespitosa*, *Neurachne alopecuroidea*, *Petrophile striata*; *Stylidium hispidum*; *Stylidium calcaratum*; *Trachymene pilosa*, and *Tricoryne elatior*. The sedge and herb storey in this vegetation complex has 10-30% cover depending on the amount of grazing the vegetation has sustained. The majority of species were less than 1m in height. Please refer to Appendix D – Flora Species List.

The Medium Woodland vegetation type is generally considered to be in “Disturbed” condition: “Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate to it;” (Keighery, 1994). Some areas of “Good Condition”: *Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate to it;* (Keighery, 1994), occurs in the eastern extent of the remnant vegetation areas. Refer to Mapping Appendix D.

#### 4.4. Mosaic: open woodland: Jarrah & Marri, with low woodland *Banksia*/sparse woodland jarrah/marri (EmCcBa)

Shepard *et al.* (2002) estimate the pre-European extent of Vegetation Type 1027 open woodland: Jarrah & Marri, with low woodland *Banksia*/sparse woodland jarrah/marri was 46,748ha, with a current area of 16,423ha. It is estimated that 30.1% of this vegetation type is represented in national parks, nature reserves and state forest, and 0% is represented in other reserves. Lot 1 (south west of subject area) is comprised of approximately 90% of this vegetation type, although is in a much degraded form due to clearing and grazing of stock. Please refer to Appendix D – Vegetation Mapping.

The overstorey in this vegetation type is dominated by a mosaic of *Eucalyptus marginata*, jarrah; *Corymbia calophylla*, marri, and *Banksia attenuata*; Slender *Banksia* and occasional *Eucalyptus tottiana*, Coastal Blackbutt and *Nuytsia floribunda*; Australian Christmas Tree, comprising to 10-60% cover depending on disturbance. The dominant shrubland species in this vegetation type are: *Pteridium esculatum*, bracken, *Adenanthos cygnorum*, *Astroloma xerophyllum*, *Bossiaea eriocarpa*, *Centrolepis drummondiana*, *Daviesia nudiflora*, *Hakea ruscifolia*, *Hibbertia hypericoides*,

*Lechenaultia floribunda* *Jacksonia floribunda*, *Patersonia occidentalis*, and *Synaphea spinulosa* which comprise 0-30% cover depending on disturbance. Please refer to Photograph 7 below.



**Photograph 7** – View of Mosaic: jarrah, marri, banksias woodland in sandy soils in south west of subject area.

This vegetation type which has been disturbed is generally considered to be in “Degraded” condition: *“Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management”*. (Keighery, 1994).

#### 4.5. Paddock Grasslands (G)

The cleared areas form approximately 70% of the property. This vegetation type is considered to be in a “Completely Degraded” condition: *“The structure of the vegetation is no longer intact and the area is completely or almost completely without native species”* (Keighery, 1994). This area can be described as Parkland Cleared, and may have been cleared in the past for the purposes of farming and agricultural use. Vegetation is primarily composed of environmental (non aggressive) weed species with isolated trees of *E.marginata* and *C.calophylla* and some areas of tagsaste plantations.

Please refer to Photograph 8 and 9 below, and Vegetation Mapping Appendix D.



**Photograph 8** – View to the west from eastern paddocks



**Photograph 6** – View of isolated Jarrah/Marri trees in cleared paddock areas.



#### 4.6. Recommendations

Based on the site survey, it is therefore recommended:

- The development is restricted to areas previously disturbed.
- Intact native vegetation in “Good” Condition should be retained to preserve biodiversity and habitat;
- Clearing of any native vegetation should be restricted to existing cleared areas and should not extend into current remnant vegetation patches; and
- Vegetation should be fenced from stock.

#### 4.7. Threatened Flora

A search of the DEC Threatened (Declared Rare) Flora and WA Herbarium Databases was undertaken with the Species and Communities Branch of DEC. Please refer to Report in Appendix C. The database search revealed a possible 13 species could be located within 5km of the subject area.

The subject site was intensively searched in remnant vegetation areas for Threatened Flora species, as listed in Table 2 and Appendix C. Searches were undertaken in walked, sweeping transects searching all of the remnant vegetation areas for a minimum of 100m outside of vegetation areas.

Site searches revealed the presence of Priority Flora species (*Acacia drummondii* ssp *affinis*), Priority 3 pursuant to Subsection 2 of Section 23F of the *Wildlife Conservation Act 1950*. Please refer to Vegetation Mapping Appendix D.

No species of Declared Rare Flora (DRF) was located on site.

It is therefore recommended:

- The development is restricted to areas previously cleared, and the remnant vegetation area containing the Priority 3 species *Acacia drummondii* ssp *affinis* is fenced to exclude stock to maintain habitat for the species.

#### 4.8. Environmentally Sensitive Areas and Threatened Ecological Communities

There are no Environmentally Sensitive Areas on the subject site or adjacent to Lot 1 and 2 Tee Tree Road, Bindoon.

A search for Threatened Ecological Communities (TECs) within the Swan (SWA2) IBRA bioregion on the SLIP portal database found that there are no TECs present on the subject site.

#### 4.9. Weeds

In 1976 the Agriculture Protection Board introduced legislation to control weeds – the *Agriculture and Related Resources Protection Act 1976*. This legislation sets out “declared” plants and legal obligations to landowners in regards to these species. If a plant is declared then landowners are obliged to control that plant on their properties.

Environmental Weeds are defined by the “Environmental Weeds Strategy for Western Australia” (1999) as “plants that establish themselves in natural ecosystems and proceed to modify natural processes, usually adversely, resulting in the decline of the communities they invade”. At present there is no legislation governing management of Environmental Weeds, landowners are encouraged to control movement and restrict further spread of these species.

Any plant other than a declared plant can be prescribed as a “Pest Plant”, under Section 109 of the *Agriculture and Related Resources Protection Act 1976*. Typically these are prescribed whereby the occurrence of these may adversely affect property values, comfort or convenience of the inhabitants of a particular district.

The Act states (6) (1) “The council may serve on the owner or occupier of private land...a duly completed notice...requiring him/her to destroy eradicate, or otherwise control any pest plant on that land”(Agriculture and Related Resources Protection Act 1976).

Thirty eight weed species in total were recorded, excepting the Pink Gladiolus (*Gladiolus caryophyllaceus*), the majority of these weeds are non aggressive in nature, refer to Table 3.

**Table 3 – Weed species present on site**

Family	Species	Common Name
POACEAE	<i>Avena sp.</i>	Wild oats
BRASSICACEAE	<i>Brassica tournefortii</i>	
POACEAE	<i>Bromus diandrus</i>	
MYRTACEAE	<i>Callistemon x citrinus</i>	
FABACEAE	<i>Chamaecytisus palmensis</i>	Tagasaste
ASTERACEAE	<i>Cotula coronopifolia</i>	Waterbuttons
CYPERACEAE	<i>Cyperus brevifolius</i>	
CYPERACEAE	<i>Cyperus tenuiflorus</i>	
ORCHIDACEAE	<i>Disa bracteata</i>	
SCROPHULARIACEAE	<i>Dischisma arenarium</i>	
POACEAE	<i>Ehrharta longiflora</i>	Annual Veldt Grass
GERANIACEAE	<i>Erodium botrys</i>	
IRIDACEAE	<i>Gladiolus caryophyllaceus</i>	Pink gladiolus
ASTERACEAE	<i>Helichrysum luteoalbum</i>	
ASTERACEAE	<i>Hypochaeris glabra</i>	
CYPERACEAE	<i>Isolepis marginata</i>	
CYPERACEAE	<i>Isolepis prolifera</i>	
FABACEAE	<i>Lotus subbiflorus</i>	
FABACEAE	<i>Ornithopus compressus</i>	
FABACEAE	<i>Ornithopus sativus</i>	
OROBANCHACEAE	<i>Orobanche minor</i>	
SCROPHULARIACEAE	<i>Parentucellia viscosa</i>	
POACEAE	<i>Pentaschistis airoides</i>	
POLYGONACEAE	<i>Persicaria decipiens</i>	
CARYOPHYLLACEAE	<i>Petrorhagia dubius</i>	
POACEAE	<i>Polypogon monspeliensis</i>	Annual beardgrass
IRIDACEAE	<i>Romulea rosea</i>	Guildford grass
ASTERACEAE	<i>Sonchus asper</i>	
ASTERACEAE	<i>Sonchus oleraceus</i>	Sowthistle
FABACEAE	<i>Trifolium arvense</i>	Hare's foot clover
FABACEAE	<i>Trifolium dubium</i>	
FABACEAE	<i>Trifolium hirtum</i>	Rose clover
FABACEAE	<i>Trifolium subterraneum</i>	Subclover
ASTERACEAE	<i>Ursinia anthemoides</i>	
ASTERACEAE	<i>Vellereophyton dealbatum</i>	
POACEAE	<i>Vulpia myuros</i>	
CAMPANULACEAE	<i>Wahlenbergia capensis</i>	

The weed species identified are not “Declared” weeds under the *Agricultural and Related Resources Protection Act 1976*, and are environmental weeds which should be restricted from movement off-site and further into any adjacent vegetation. The Pink Gladiolus (*Gladiolus*

*caryophyllaceus*) is aggressive and is present within the remnant native vegetation on the eastern boundary of the subject site. It is recommended this species is targeted for control and eradication from the area to allow native species to establish.

Skeleton Weed (*Chondrilla juncea*) has been recorded on site, however no species were located during vegetation survey. Skeleton Weed is a Declared plant. Management strategies for this species include:

- P1 – Plants which cannot be introduced or spread; and
- P4 – Containment, plants should be prevented from further spread.

***Skeleton Weed Control Method - Report any plants to the Department of Agriculture and Food (DAFWA)***

All plants found must be reported immediately to Agriculture Western Australia or District Agriculture Protection officers to be dealt with under the Skeleton Weed Eradication Project.

It is therefore recommended:

- Weeds should be controlled on-site and restricted from movement offsite, this can be undertaken by ensuring machines are clean on entry and exit when disturbing any soils or vegetative matter;
- The Pink Gladiolus (*Gladiolus caryophyllaceus*) is targeted for eradication in the eastern remnant vegetation area; and
- Continue monitoring the subject area for occurrences of the Declared plant Skeleton Weed (*Chondrilla juncea*) and if located report to DAFWA.

## 5. Discussion

The Shire of Chittering have a Local Biodiversity Strategy which aims to conserve existing native vegetation and extend linkages to further protect vegetation complexes and values. The subject site is not located in a Priority area or contains a Priority Vegetation Complex.

The Priority areas of native vegetation (SOC, 2010) include:

- Natural areas with vegetation complexes under represented regionally and locally, within and outside the IHCVAs;
- Adequate buffers to significant flora, fauna and ecological communities;
- Adequate buffers to creeklines and other wetlands;
- Vegetation that provides habitat to Carnaby's black cockatoos;
- Patches of native vegetation that form a regional or local ecological linkage;
- Buffers to formal conservation reserves as well as private properties with voluntary management agreements through Land for Wildlife and conservation reserves or similar; and
- High conservation value roadside remnant vegetation.

The vegetation on site supports possible habitat and feed trees for the Carnaby's Black Cockatoo and Baudin's Cockatoo these species are presently protected Federally and under State legislation.

### **Status:**

Carnaby's Black Cockatoo: Wildlife Conservation (Specially Protected Fauna) Notice 2010 - Schedule 1 Endangered: EPBC Act Endangered; Forest Red-Tailed Black Cockatoo: Wildlife Conservation (Specially Protected Fauna) Notice 2010 Schedule 1 - Vulnerable: EPBC Act Vulnerable;.

A survey of possible habitat trees and feed trees was not undertaken within the scope of these works. It is possible that isolated trees in paddock areas could be frequented by these species. A survey of trees which are going to be removed in the paddock areas (i.e for road or fencing infrastructure) should be undertaken and referral to the Federal Department of Sustainability, Environment, Water, Population and Communities may be required depending on the outcome.

The subject site supports remnant native vegetation patches in the east of the site which is in "Good" Condition which, if fenced from stock, would recover to "Excellent Condition without any further revegetation. The protection of these areas would provide an increase in the biodiversity values of the local area, meeting one of the aims of the Shire of Chittering Biodiversity Strategy.

It is recommended to the client that the following is implemented at Subdivision to ensure the existing Biodiversity values are achieved and future values for the area are achieved:

1. Protect the Priority 3 species *Acacia drummondii ssp affinis*, and provide further suitable habitat for the species in the future by fencing the area from stock;
2. Increase the local Biodiversity by creating north-south and east-west micro corridors.
3. The remnant vegetation areas in the east should be fenced to exclude stock in an effort to increase the biodiversity within these areas and encourage regeneration.
4. A survey of current habitat and feed trees of the Carnaby's and Red tailed black cockatoo occur of any trees >500mm diameter.
5. Applying Development Exclusion Zones over remnant vegetation areas in 'Good Condition' to ensure the long term protection of these areas. A notification on title should be applied to ensure if the land is sold this is known to prospective buyers.

These recommendations have been mapped across the site and is shown in Appendix F – Recommendations Mapping.

## 6. Conclusion

Bio Diverse Solutions was commissioned to undertake a Spring Flora and Vegetation Survey of Lot 1 and 2 Tee Tree Road Bindoon as part of investigations requested from Whelans in support of a proposal to rezone land for Rural Residential purposes. The Spring Flora and Vegetation Survey is required by the Western Australian Planning Commission (WAPC) to assist with the rezoning process. The survey is aligned to Environmental Protection Authority (EPA) *Guidance Statement number 51: Terrestrial Flora and Vegetation Surveys*.

This report details the vegetation types on site, gives a flora inventory, an assessment of Threatened Flora and recommendations for future management of the proposed Rural Residential Development land use. The assessment of the site involved desktop assessment by review of the GIS datasets mapping (DoW, DEC), review of DEC Threatened Flora Database, review of literature sources, searches of Florabase and associated reference texts.

The survey area was approximately 484 ha, with the majority of the site cleared for agricultural use, intensive survey was undertaken in remnant vegetation patches via traversing on foot. Physical survey was undertaken in the spring flowering period on the 13<sup>th</sup> October 2011, which is considered the appropriate time of year for positively identifying plant species. Site survey included sweeping transects across the whole site, remnant vegetation areas, and further intensive searches for Threatened Flora at probable habitat types.

A total of three Vegetation types were identified on site, being:

- Medium woodland; jarrah-marri (EmCc);
- Mosaic: Medium open woodland: Jarrah & Marri, with low woodland Banksia/sparse woodland jarrah/marri; and
- Grassland areas: bare paddock areas.

One Priority species as listed by the Wildlife Conservation Act 1950 was located within a remnant vegetation area in the east. This area is not proposed to be disturbed as part of the subdivision development.

The proposed development is utilising already cleared/disturbed areas for infrastructure requirements, with some removal of isolated paddock trees for road/infrastructure requirements. The vegetation in these areas was considered to be in Completely Degraded Condition. It is not anticipated that this development will impact the remnant vegetation areas which are in Good Condition.

The findings in this report are based on the implementation of the following recommendations:

1. Protect the Priority 3 species *Acacia drummondii ssp affinis*, and provide further suitable habitat for the species in the future by fencing the area from stock;
2. Increase the local biodiversity by creating north-south and east-west micro corridors, by linking to the remnant vegetation patches in the east of the subject site and through the north of existing Lot 1;
3. The remnant vegetation areas in the east should be fenced to exclude stock in an effort to increase the biodiversity within these areas and encourage regeneration;
4. A survey of current habitat and feed trees of the Carnaby's and Red tailed black Cockatoo occur of any trees >500mm diameter, depending on the outcome of the survey, possible referral may be required to the Federal Department of Sustainability, Environment, Water, Population and Communities;
5. Applying Development Exclusion Zones over remnant vegetation areas in 'Good Condition' to ensure the long term protection of these areas. A notification on title should be applied to ensure if the land is sold this is known to prospective buyers.

6. Weeds should be controlled on-site and restricted from movement offsite, this can be undertaken by ensuring machines are clean on entry and exit when disturbing any soils or vegetative matter;
7. The Pink Gladiolus (*Gladiolus caryophyllaceus*) is targeted for eradication in the eastern remnant vegetation area; and
8. Continue monitoring the subject area for occurrences of the Declared plant Skeleton Weed (*Chondrilla juncea*) and if located report to DAFWA.

If the above recommendations are implemented the property would assist in achieving the following goals from the Shire of Chittering's local Biodiversity Strategy:

1. **Goal 1 – Retention of natural areas:** through the fencing of all the “Good Condition” vegetation areas and providing linkages to adjacent remnant vegetation.
2. **Goal 2 – Protection of natural areas:** in remnant vegetation areas place “Development Exclusion” and notification on title top prospective buyers.

Bio Diverse Solutions conclude that if the listed recommendations are implemented by the client, the development of rural residential on Lot 1 and 2 Tee Tree Road Bindoon can be implemented sustainably and in an environmentally sound manner.

It is further recommended that if the construction of this development is not undertaken within 5 years of this survey, after that time the Spring Survey should be re-conducted to verify/confirm absence/presence of Threatened Flora species adjacent to proposed disturbance areas.



## 7. References

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**Appendices**

**Appendix A – Location Mapping**

**Appendix B – Outline Development Plan**

**Appendix C – DEC Threatened Flora Report**

**Appendix D – Vegetation Mapping**

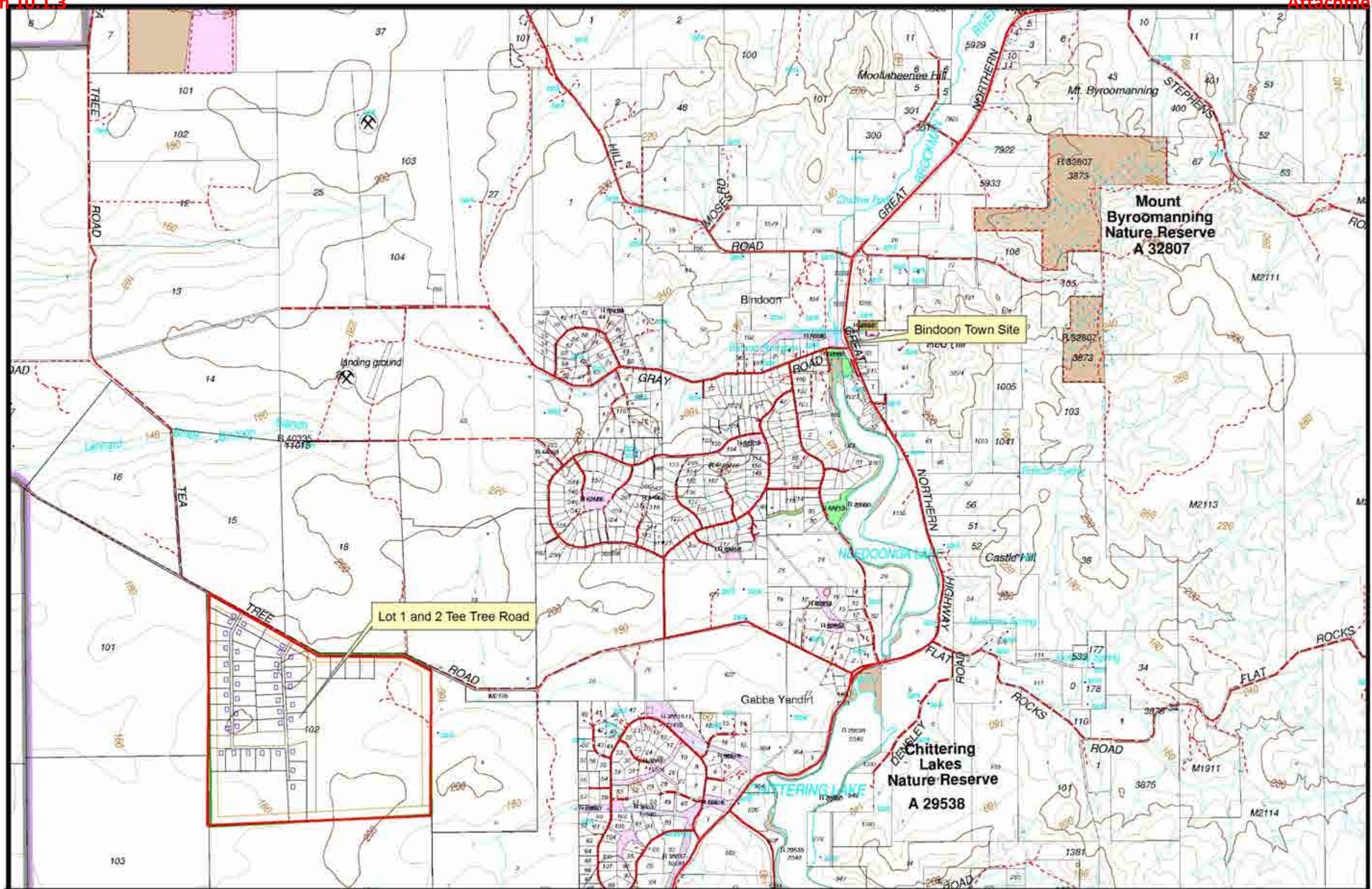
**Appendix E – Flora Species List**

**Appendix F – Recommendations Mapping**

Appendix A

Location Mapping





## Legend

Subject area

Scale  
1:40000 @ A3



0 390 780 1,560 2,340 3,120 Meters



**BIO  
DIVERSE  
SOLUTIONS**

55 Peppermint Drive  
Albany, WA 6330  
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CLIENT Lot 1 and 2 Tee Tree Road  
Bindoon WA

## Location Mapping

STATUS	FILE	DATE
FINAL	WHEL014	20/01/2012



**Appendix B**

**Outline Development Guide Plan**

**Whelans**



# Item 10.1.3

# Attachment 1

10m road widening of Tea Tree Road

Dwelling construction within 100m FHS to be BAL 12.5

Brennan Road as Strategic Fire Break

Proposed subdivision roads 30m wide

Public open-space corridors to link areas of high biodiversity

Retention of windmill on Lot 31

Landowner to retain balance lot for winery and possible incidental tourism uses

Emergency and Fire Service access within POS

Future site for Ukrainian Youth Camp

## ADOPTION

Adopted by resolution of the Council of the Shire of Chiltern and the Ordinary meeting of Council held on the day of 2012, and the seal of the municipality was pursuant to the resolution hereto affixed in the presence of:

President

Chief Executive Officer

Date

**LEGEND**

- 100m Fire Hazard Separation
- Public Open Space
- Strategic Fire Breaks (indicative only)
- Building Envelopes
- Strategic Fire Service Access

**PUBLIC OPEN SPACE**  
Total Site Area of Lots 1 & 2 = 483 hectares  
Public Open Space provided = 48 hectares (10%)

**DEVELOPMENT PLAN LOT YIELD**  
Total No. lots proposed = 44  
(including indicative lots on Tea Tree Rd)

## DEVELOPMENT PROVISIONS RELATING TO THE SITE

- The Development Plan is subject to the Council of the Shire of Chiltern and the Ordinary meeting of Council held on the day of 2012, and the seal of the municipality was pursuant to the resolution hereto affixed in the presence of:
- Development Provisions and LIA Rules in considering development and subdivision of the land in accordance with the Shire of Chiltern Local Planning Scheme No. 2 to the Rural Planning zone apply.
- Vegetation Provisions: No clearing is permitted without Planning Consent, either under a Vegetation Protection and Management Plan or under a Development Plan, unless those provisions are approved or approved under a Development Plan.
- Building Envelopes: Buildings, water tanks and waste disposal are to be contained within the area not to exceed a maximum of 2,000 sqm without the prior approval of Council. Building envelopes are to be set back from adjacent boundaries as follows:
  - Highways 100 metres
  - Roads 20 metres
  - Side 10 metres
- If the site is to have a third lot for the proposed dwelling greater than 0.5 hectares, a minimum of 100,000 litres of water storage is to be provided for the dwelling and for every 0.5 hectares of land above the minimum level, water storage is to be increased by 2 metres.
- Fencing: In accordance with Local Planning Policy No. 22 'Fencing', within a lot for the construction of a fence around the building envelope, any previously cleared area and adjoining an authorised network, is permitted. However, no boundary fence is permitted in vegetation protection areas identified on the Development Plan, without planning consent of the Council.
- Grasslands: The construction of a structure to each lot is to be in accordance with Council's specifications.
- Portable Water: Each dwelling is to have a water supply from roof catchment of a minimum of 120,000 litres, of which 10,000 litres is to be kept in reserve for fire fighting purposes and fitted with a standard 60mm main Gannock pipe.
- Land Management: The maintenance of any drainage easels, easements, the easels and vegetation protection and water storage areas is the responsibility of the owner/occupier.
- Fences, Gates and Water Courses: The removal of fences, construction of drains and extraction of surface water is not permitted without the approval of the Council and relevant State Government department.
- Fire Control: Strategic Fire Strategy as shown on the Development Plan will be conducted by the Development Plan and only to be conducted by the supervisor prior to the submission of the Chief Executive Officer and the Fire and Emergency Services Authority, in accordance with Local Planning Policy No. 21 'Fire Management Plan'.
- Permitted Uses: In considering development and subdivision of the land, the requirements of the Shire of Chiltern Local Planning Scheme No. 2 to the Rural Planning zone apply. For any use that may result in degradation of land or water resources or nuisance to neighbours, a development plan may be required as a condition of development approval.
- Stocking Provisions: Grazing of cattle and sheep is to be restricted to avoid overgrazing in accordance with Local Planning Policy No. 24 'Stocking Rates and Keeping of Animals'.
- Domestic Pigs: The keeping of domestic pigs is prohibited.
- Roofing Materials: All buildings shall be constructed with roofs of non-combustible materials.
- Waste Disposal: Where indicated on the Development Plan, appropriate facilities are to be provided for refuse disposal.
- Drainage: Structures shall maintain suitable drainage lines to avoid erosion and the impact of gully clogging. These shall be in accordance with relevant drainage lines.
- Waste Responsibility: The developer/owner shall submit appropriate provisions of the site, in light of the provisions of the Council's Local Planning Scheme relating to the management of the land, as specified in the Development Plan and the Management Plan.

## OUTLINE DEVELOPMENT PLAN LOTS 1 & 2 TEA TREE ROAD BINDOON



**Appendix C**

DEC Threatened Flora

Database Search



Department of  
**Environment and Conservation**  
Our environment, our future



Your Ref:  
Our Ref: **23-1011FL**  
Enquiries: Jessica Donaldson  
Phone: (08) 9334 0123  
Fax: (08) 9334 0278  
Email: [jessica.donaldson@dec.wa.gov.au](mailto:jessica.donaldson@dec.wa.gov.au)

**Bio Diverse Solutions**  
55 Peppermint Drive  
Albany WA 6330

Attention: Kathryn Kinnear

Dear Kathryn Kinnear,

#### REQUEST FOR RARE FLORA INFORMATION

I refer to your request of 03 October 2011 for Threatened Flora information in the Bindoon area. The search was conducted within a 5km radial area from the central coordinates you submitted.

A search was undertaken for this area of **(1)** the Department's *Threatened (Declared Rare) Flora* database (for results, *if any*, see "DEFL" – coordinates are GDA94), **(2)** the *Western Australian Herbarium Specimen* database for priority species opportunistically collected in the area of interest (for results, *if any*, see "WAHERB" – coordinates are GDA94 – see condition number 9 in the attached 'Conditions in Respect of Supply' and **(3)**, the Department's *Declared Rare and Priority Flora List* [this list is searched using 'place names'. This list, which may also be used as a species target list, contains species that are declared rare (Conservation Code R or X for those presumed to be extinct), poorly known (Conservation Codes 1, 2 or 3), or require monitoring (Conservation Code 4) – for results, *if any*, see "DP List"]. The results are attached electronically to this email.

Attached also are the conditions under which this information has been supplied. Your attention is specifically drawn to the seventh point, which refers to the requirement to undertake field investigations for the accurate determination of rare flora occurrence at a site. *The information supplied should be regarded as an indication only of the rare flora that may be present and may be used as a target list in any surveys undertaken.*

The information provided does not preclude you from obtaining and complying with, where necessary, land clearing approvals from other agencies.

An invoice for \$300 (plus GST) to supply this information will be forwarded.

It would be appreciated if any populations of rare flora you encounter in the area could be reported to this Department to ensure their ongoing management.

If you require any further details, or wish to discuss rare flora management, please contact Dr Ken Atkins, Manager, Species and Communities Branch, on (08) 9334 0455.

Yours faithfully

Jessica Donaldson

.....  
for Keiran McNamara  
DIRECTOR GENERAL

7 October 2011

**Species and Communities Branch**

17 Dick Perry Ave, Technology Park, Kensington

Phone: (08) 9334 0455 Fax: (08) 9334 0278

Locked Bag 104, Bentley Delivery Centre, Bentley, Western Australia 6983

[www.dec.wa.gov.au](http://www.dec.wa.gov.au)

## DEPARTMENT OF ENVIRONMENT AND CONSERVATION

## RARE FLORA INFORMATION

## CONDITIONS IN RESPECT OF SUPPLY OF INFORMATION

1. All requests for data to be made in writing to the Director General, Department of Environment and Conservation, Attention: Threatened Flora Database Officer, Species and Communities Branch.
2. The data supplied may not be supplied to other organisations, nor be used for any purpose other than for the project for which they have been provided, without the prior written consent of the Director General, Department of Environment and Conservation.
3. Specific locality information for Declared Rare Flora is regarded as confidential, and should be treated as such by receiving organisations. Specific locality information for DRF may not be used in public reports without the written permission of the Director General, Department of Environment and Conservation. Publicly available reports may only show generalised locations or, where necessary, show specific locations without identifying species. The Department is to be contacted for guidance on the presentation of rare flora information.
4. Note that the Department of Environment and Conservation respects the privacy of private landowners who may have rare flora on their property. Rare flora locations identified in the data as being on private property should be treated in confidence, and contact with property owners made through the Department of Environment and Conservation.
5. Receiving organisations should note that while every effort has been made to prevent errors and omissions in the data provided, they may be present. The Department of Environment and Conservation accepts no responsibility for this.
6. Receiving organisations must also recognise that the database is subject to continual updating and amendment, and such considerations should be taken into account by the user.
7. **It should be noted that the supplied data do not necessarily represent a comprehensive listing of the rare flora of the area in question. Its comprehensiveness is dependant on the amount of survey carried out within the specified area. The receiving organisation should employ a botanist, if required, to undertake a survey of the area under consideration.**
8. Acknowledgment of the Department of Environment and Conservation as source of the data is to be made in any published material. The unique reference number that is given upon the request for information should be quoted. Copies of all such publications are to be forwarded to the Department of Environment and Conservation, Attention: The Manager, Species and Communities Branch.
9. The development of the PERTH Herbarium database was not originally intended for electronic mapping (eg. GIS ArcView). The latitude and longitude coordinates for each entry are not verified prior to being databased. It is only in recent times that collections have been submitted to PERTH with GPS recorded in latitude and longitude coordinates. Therefore, be aware when using this data in ArcView that some records may not plot to the locality description given with each collection.

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## THE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DECLARED RARE AND PRIORITY FLORA LIST

for Western Australia

## CONSERVATION CODES

## R: Declared Rare Flora - Extant Taxa

**Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such.**

## X: Declared Rare Flora - Presumed Extinct Taxa

**Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such.**

## 1: Priority One - Poorly known Taxa

**Taxa which are known from one or a few (generally <5) populations which are under threat**, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

## 2: Priority Two - Poorly Known Taxa

**Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat** (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

## 3: Priority Three - Poorly Known Taxa

**Taxa which are known from several populations, and the taxa are not believed to be under immediate threat** (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey.

## 4: Priority Four - Rare Taxa

**Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors.** These taxa require monitoring every 5-10 years.

Note, the need for further survey of poorly known taxa is prioritised into the three categories depending on the perceived urgency for determining the conservation status of those taxa, as indicated by the apparent degree of threat to the taxa based on the current information.

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## ABBREVIATIONS USED IN THREATENED FLORA DATABASE PRINTOUTS

**VESTING**

AAP	Aboriginal Planning Authority
AGR	Chief Executive, Dep. of Agriculture
ALT	Aboriginal Land Trust
APB	Agricultural Protection Board of WA
BGP	Botanical Gardens & Parks Authority
BSA	Boy Scouts Association
CC	Conservation Commission – NPNCA - LFC
CGT	Crown Grant in Trust
COM	Commonwealth of Australia
CRO	Crown Freehold-Govt Ownership
CRW	Crown
DAG	Dep. of Agriculture
DOW	Dep. of Water
DPI	Dep. of Planning & Infrastructure
EXD	Exec Direc CALM
FES	Fire and Emergency Services Aust.
HOW	Dep. of Housing/State Housing Commission
ILD	Industrial Lands Develop. Auth
LAC	LandCorp
MAG	Minister for Agriculture
MBC	Metropolitan Cemeteries Board
MED	Ministry of Education
MHE	Minister for Health
MIN	Minister for Mines
MPL	Ministry for Planning
MPR	Minister for Prisons
MRD	Main Roads WA
MTR	Minister for Transport
MWA	Minister for Water Resources
MWO	Minister for Works
NAT	Natural Trust of Australia WA
NON	Not Vested
PLB	Pastoral Lands Board
PRI	Private/Freehold
RAI	Public Transport Authority
REL	Religious Organisation
SEC	Synergy (ex Western Power)
SHI	Shire
SPC	State Planning Commission
SWA	State of Western Australia
TEL	Telstra
UNK	Unknown
WAT	Water Corporation
WEL	Minister Community Welfare
WRC	Water & Rivers Commission
XPL	Ex-Pastoral Lease

**PURPOSES**

ABR	Aboriginal Reserve
ACC	Access Track
AER	Aerodrome
AIR	Airport
ARS	Agricultural Research Station
BAP	Baptist Union of WA
CAM	Camping
CAR	Caravan park
CEM	Cemetery
CFA	Conservation of Fauna
CFF	Conservation Of Flora & Fauna
CFL	Conservation of Flora
CHU	Church
CPK	Car Park
CMN	Communications
COM	Common

CON	Conservation Park
DEF	Defence
DRA	Drain
EDE	Educational Endowment
EDU	Educational purposes UWA
ENE	Enjoyment of Natural Environ.
EXC	Excepted from sale
EXL	Exploration Lease
EXP	Experimental Farm
FIR	Firing Range
FOR	State Forest
GE	General Lease
GHA	Grain Handling
GOL	Golf
GRA	Gravel Pit
GVT	Government Requirements
HAR	Harbour Purposes
HEP	Heritage Purposes
HER	Heritage trail
HOS	Hospital
KEN	Kennels
LPR	Landscape Protection
MIN	Mining lease
MUN	Municipal Purposes
NPK	National Park
NRE	Nature Reserve
OTH	Other
PAR	Parkland (& Recreation)
PAS	Pastoral lease
PFF	Protection of Flora & Fauna
PFL	Protection of Flora
PIC	Picnic ground
PLA	Plantation
POS	Public Open Space
PRS	Prison site
PUR	Purchase Lease
PUT	Public Utility
QUA	Quarry
RAD	Radio Station
RAC	Racecourse
REC	Recreation
REH	Rehabilitation/Re-establish Native Plants
RRE	Railway Reserve
RUB	Rubbish
SAN	Sand
SCH	School-site
SET	Settlers requirements
SHI	Shire Requirements
SHO	Showgrounds
SNN	Sanitary
SOI	Soil Conservation
STO	Stopping place
TIM	Timber
TOU	Tourism
TOW	Town-site
TRA	Training Ground
TRI	Trig station
UCL	Unallocated Crown Land
UNK	Unknown
VER	Road Verge
VPF	Vermin Proof Fence
WAT	Water
WLS	Wildlife Sanctuary
WOO	Firewood



**DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DECLARED RARE AND PRIORITY FLORA LIST  
16 September 2010**

SPECIES / TAXON	CONS CODE	DEC REGION	DISTRIBUTION	FLOWER PERIOD
<i>Acacia browniana</i> var. <i>glaucescens</i>	2	MW,SW	Bindoon, Julimar, Mogumber	
<i>Acacia drummondii</i> subsp. <i>affinis</i>	3	MW,SW	Bindoon, Muchea, Julimar, Wannamal, Mullewa, New Norcia, Drummond NR	
<i>Acacia pulchella</i> var. <i>reflexa</i> acuminate bracteole variant (RJ Cumming 882)	3	SW	Wannamal, Bindoon, York, Boonanarring	
<i>Adenanthos cygnorum</i> subsp. <i>chamaephyton</i>	3	SW,SR	Chidlow, Mundaring, Collie, Bindoon, Muchea, Sawyers Valley	
<i>Asteridea gracilis</i>	3	SW,SC	Gosnells, Mt Saddleback, South Stirling, Gordon Inlet, Bindoon, Helena Valley	Sep-Oct
<i>Asterolasia nivea</i>	T	SW	Bindoon	Aug-Oct
<i>Astroloma</i> sp. <i>Cataby</i> (EA Griffin 1022)	4	MW,SW	Eneabba, Gairdner Range, Cataby, Calingiri, Bindoon, New Norcia	Feb-Jul
<i>Astroloma</i> sp. <i>Nannup</i> (RD Royce 3978)	4	SR,SW,WA	Bindoon, Forest Grove, Nannup, Scott River, Careys Flat, Manjimup (Barlee Brook), Witchcliffe, Abba River, Margaret River	Apr-Jun
<i>Calothamnus pachystachyus</i>	4	MW,SW	Bindoon, Mogumber, New Norcia	Aug-Oct
<i>Commersonia</i> sp. Bindoon (CF Wilkins & F & J Hort CW 2155)	1	SW	Bindoon	
<i>Conostylis caricina</i> subsp. <i>elachys</i>	1	WB,SW	Gunyidi, Goomalling, Dowerin, Bindoon	Aug,Sep
<i>Cyanicula ixioides</i> subsp. <i>candida</i>	2	SW	Bindoon, Smiths Mill, York, Wooroloo	Sep-Oct
<i>Drosera sewelliae</i>	1	SW	Lower Chittering, Julimar	Oct
<i>Eucalyptus exilis</i>	4	MW,WB,SW	Mt Lesueur, Coorow, Boyagin Rock, Wandering, Bindoon, Gunapin, Coomallo NR, Beverley	Dec-Apr
<i>Gastrolobium crispatum</i>	1	SW	Bindoon, Julimar, Gidgegannup, Mt Byroomanning	Oct
<i>Goodenia arthrotricha</i>	T	SW,MW	Wannamal, Moora, Ellis Brook, Bindoon	Nov,Dec
<i>Grevillea corrugata</i>	T	SW	Bindoon	Aug-Sep
<i>Grevillea drummondii</i>	4	MW,SW	Bindoon, Hay Flat, New Norcia, Yandan Hill	Jun-Oct
<i>Grevillea florida</i>	3	MW,SW	Bindoon, New Norcia, Cataby	Jul-Sep
<i>Hibbertia glomerata</i> subsp. <i>ginginensis</i>	1	SW	Gingin, Bindoon	Jul-Sep
<i>Hibbertia miniata</i>	4	SW	Hay Flat, Bindoon Hill, Julimar, Wannamal	Jul-Oct
<i>Hypocalymma</i> sp. Tea Tree Road (O. Davies OD 171)	1	SW	Bindoon	
<i>Hypocalymma sylvestre</i>	1	SW	Chittering	Aug-Oct
<i>Johnsonia inconspicua</i>	3	SR,SW	South of Carburnup, Yelverton, Bindoon, Julimar, Quindalup	Nov
<i>Lasiopetalum</i> sp. Toodyay (F. Hort 2689)	1	SW	Wannamal, Bindoon Training Area	Sep
<i>Lechenaultia magnifica</i>	1	SW,WB	Bindoon, Julimar SF, Calingiri, Gingin	Nov
<i>Oxymyrrhine coronata</i>	4	SW	Chittering, Bullsbrook, Avon Valley	Dec,Jan
<i>Persoonia sulcata</i>	4	SW,WB,MW	John Forrest N.P., Wongamine N.R., Bindoon, Dardadine, Calingiri	Sep-Nov
<i>Petrophile plumosa</i>	3	MW,SW	Bindoon, Mogumber, New Norcia	Jul-Nov
<i>Schoenus griffinianus</i>	3	MW,WB,SW	Eneabba, Wongan Hills, Greenough, Chittering, Hazelmere, Wanneroo	Oct-Nov

DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
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SPECIES / TAXON	CONS CODE	DEC REGION	DISTRIBUTION	FLOWER PERIOD
<i>Senecio gilbertii</i>	1	SW,SR	Bindoon, York, Wooroloo, Wilga, Gooseberry Hill	Sep-Nov
<i>Spirogardnera rubescens</i>	T	MW,SW	Bindoon-Eneabba, Alexander Morrison NP	Aug-Nov
<i>Stylidium cymiferum</i>	3	MW,SW	Calingiri, Bindoon, Chittering, Toodyay	Oct
<i>Stylidium glabrifolium</i>	2	SW	Bindoon	Oct
<i>Synaphea grandis</i>	4	MW,SW	Wannamal, New Norcia, Julimar, Muchea, Bindoon, Gingin	Oct-Nov
<i>Synaphea panhesya</i>	1	SW	Bindoon, Mogumber	Aug-Sep
<i>Tetratheca similis</i>	3	SW	Bindoon, Mt Dale area, Wandoo CP	Aug-Sep
<i>Verticordia serrata</i> var. <i>Udumung</i> (D Hunter & B Yarran 941006)	2	SW	Bindoon	Oct

		20_1011_WAHERB							
OID SHEET_NO	SPECIES	CONSCODE	SITE	VEGETATION	LOCALITY	LAT	LONG_	DATE_	
PERTH 00319244	Acacia drummondii subsp. affinis	3	On hillside in latetitic gravel.		22.5 km from Bullsbrook East towards Chittering	-31.4642	116.025	02 08 1973	
PERTH 07215134	Acacia drummondii subsp. affinis	3	On high ground between the highway and lake.	Remnant woodland. Contiguous with fringing vegetation on la	Site 7, Great Northern Highway, S of Bindoon	-31.4167	116.0833	09 2005	
PERTH 00342750	Acacia pulchella var. reflexa acuminate bracteole varian	3	Road verge.	Eucalyptus calophylla-wandoo woodland.	8 km (5 miles) from Bindoon towards Toodyay	-31.4519	116.09	05 09 1981	
PERTH 1616188	Adenanthos cygnorum subsp. chamaephyton	3	Low upland, well drained; shallow grey sand over laterite,	Low Heath C over Low Heath D (Scheme of Muir 1977); Alloca	Private Property, 6.4 km at 250degrees from Bindoon	-31.409	116.0348	24 11 1990	
PERTH 07215126	Adenanthos cygnorum subsp. chamaephyton	3	On slope above the highway, adjacent to totally cleared pa	Isolated remnant woodland. Good understorey diversity rema	Site 10, Great Northern Highway, S of Bindoon	-31.4167	116.0833	09 2005	
PERTH 01297473	Astroloma sp. Cataby (E.A. Griffin 1022)	4	Yellow gravel soil.	Forest.	7 miles from Bindoon, 50 miles NE of Perth	-31.3833	116.0833	27 04 1957	
PERTH 07782160	Chamelaucium sp. Gingin (N.G. Marchant 6)	T	Slope, dry red-brown gravel.	No associated species.	Lot 439 Breera Road, Gingin, lot number on front entry gate shown as 4!	-31.4401	115.9693	03 09 2007	
PERTH 847917	Cyanicula ixioioides subsp. candida	2		Eucalyptus wandoo and E. calophylla woodland over formerly	9 km NNE of Bindoon, access off Stevenson Road	-31.3833	116.0833	21 09 1986	
PERTH 01052683	Gastrolobium nudum	2			Chittering	-31.4414	116.0964	25 09 1956	
PERTH 04360745	Grevillea corrugata	T	In gravelly loam.	Beside road in eucalypt forest. Disturbed verge.	Julimar road, 1.3 km from Chittering road, c. 10 km S of Bindoon	-31.4333	116.0667	04 10 1992	
PERTH 04360753	Grevillea corrugata	T	In gravelly loam.	Beside road in eucalypt forest. Disturbed verge.	Julimar road, 1.3 km from Chittering road, c. 10 km S of Bindoon	-31.4333	116.0667	04 10 1992	
PERTH 04360761	Grevillea corrugata	T	In gravelly loam.	Beside road in eucalypt forest. Disturbed verge.	Julimar road, 1.3 km from Chittering road, c. 10 km S of Bindoon	-31.4333	116.0667	04 10 1992	
PERTH 07739028	Hypocalymma sp. Tea Tree Road (O. Davies OD 171)	1	Gentle slope. Damp, brown sand-loam-gravel over laterite.	Low Heath D. Hibbertia hypericoides var. hypericoides, Pentas	In property of Tea Tree Road, Bindoon	-31.4417	116.0547	22 11 2007	
PERTH 03259951	Oxymyrrhine coronata	4	Lateritic gravel.	Marginal Jarrah/Wandoo forest.	3.5 km SE of Keating road, Chittering	-31.4414	116.0964	10 12 1981	
PERTH 07782152	Ptychosema pusillum	T	Slope, dry white sand.	Low Woodland B over Low Heath Cover Herbs. Banksia menze	Lot 439 Breera Road, Gingin, Plants at NE corner of property on fire brea	-31.4383	115.9716	18 09 2007	
PERTH 08202931	Tetratheca pilifera	3	Slope, breakaway. Gully, drainage line. Dry - moist brown li	Eucalyptus wandoo fringing shrubland. Associated species: Tr	350 Bindoon Spring Road, ca 750 m E of the farmhouse, Toodyay Wes	-31.4137	116.0723	08 10 2009	
PERTH 07835302	Verticordia rutilastra	3	Sand, flat, private property.	Low Open Woodland of Eucalyptus todiana and Banksia atter	Lot 26 Ippolo Road, Dandragan Plateau	-31.4548	115.9904	12 10 2008	

23_1011 DEFL												
OID_	SHEET	SPNAME	CONSVCOE	POPID1	POPID2	GDA94LAT	GDA94LONG	VESTING	PURPOSE1	PURPOSE2	STATUS	OWNERDATE
	25616	Acacia drummondii subsp. affinis		3	16	-31.41667	116.08333	UNK	UNK			1/09/2005 0:00
	9630	Adenanthos cygnorum subsp. chamaephyton		3	3 A	-31.40322	116.08842	MRD	GRA			26/10/1996 0:00
	9631	Adenanthos cygnorum subsp. chamaephyton		3	3 B	-31.40322	116.08897	SHI	OTH			26/10/1996 0:00
	9632	Adenanthos cygnorum subsp. chamaephyton		3	3 C	-31.40349	116.08869	SHI	VER			26/10/1996 0:00
	9636	Adenanthos cygnorum subsp. chamaephyton		3	3 D	-31.41294	116.09147	SHI	VER			26/10/1996 0:00
	9639	Adenanthos cygnorum subsp. chamaephyton		3	4	-31.43016	116.07814	MRD	VER			26/10/1996 0:00
	9655	Adenanthos cygnorum subsp. chamaephyton		3	11	-31.40905	116.03481	PRI				24/11/1990 0:00
	25678	Adenanthos cygnorum subsp. chamaephyton		3	20	-31.40906	116.03481	PRI				24/11/1990 0:00
	27496	Chamelaucium sp. Gingin (N.G. Marchant 6)	T		7	-31.44006	115.96925	PRI				3/09/2007 0:00
	27494	Ptychosema pusillum	T		3	-31.43828	115.97161	PRI				3/09/2007 0:00

**Appendix D**

Vegetation Mapping







**Appendix E**

Flora Species List

**Flora species list**

Family	Species	Common Name	Weed
FABACEAE	<i>Acacia barbinervis ssp barbinervis</i>		
FABACEAE	<i>Acacia drummondii ssp affinis</i>	P3 #319	
FABACEAE	<i>Acacia pulchella</i>		
FABACEAE	<i>Acacia pulchella var. pulchella</i>		
PROTEACEAE	<i>Adenanthos cygnorum</i>		
ASTERACEAE	<i>Angianthus tomentosus</i>		
HAEMODORACEAE	<i>Anigozanthos humilis</i>	Cats paw	
CASUARINACEAE	<i>Allocasuarina humilis</i>		
ERICACEAE	<i>Astroloma pallidum</i>		
ERICACEAE	<i>Astroloma xerophyllum</i>		
POACEAE	<i>Austrostipa compressa</i>		
POACEAE	<i>Austrodanthonia occidentalis</i>		
POACEAE	<i>Avena sp.</i>	Wild oats	Y
MYRTACEAE	<i>Babingtonia camphorosmae</i>		
MYRTACEAE	<i>Baeckea crispiflora var. tenuior</i>		
MYRTACEAE	<i>Baeckea grandiflora</i>		
PROTEACEAE	<i>Banksia attenuata</i>		
PROTEACEAE	<i>Banksia dallanneyi var. dallanneyi</i>		
PROTEACEAE	<i>Banksia grandis</i>		
PROTEACEAE	<i>Banksia sessilis var. sessilis</i>		
CYPERACEAE	<i>Baumea rubiginosa</i>		
RUTACEAE	<i>Boronia ramosa ssp anethifolia</i>		
FABACEAE	<i>Bossiaea eriocarpa</i>		
BRASSICACEAE	<i>Brassica tournefortii</i>		Y
POACEAE	<i>Bromus diandrus</i>		Y
COLCHICEAE	<i>Burchardia congesta</i>		
HEMEROCALLIDACEAE	<i>Caesia micrantha</i>		
ORCHIDACEAE	<i>Caladenia flava</i>		
PORTULACACEAE	<i>Calandrinia corrigioloides</i>		
MYRTACEAE	<i>Callistemon x citrinus</i>		Y
LAURACEAE	<i>Cassytha flava</i>		
CENTROLEPIDACEAE	<i>Centrolepis drummondiana</i>		
FABACEAE	<i>Chamaecytisus palmensis</i>	Tagasaste	Y
ASPARAGACEAE	<i>Chamaescilla corymbosa</i>	Blue squills	
PROTEACEAE	<i>Conospermum stoechadis</i>		
HAEMODORACEAE	<i>Conostylis setosa</i>		
MYRTACEAE	<i>Corymbia calophylla</i>	Marri	
ASTERACEAE	<i>Cotula coronopifolia</i>	Waterbuttons	Y
CRASSULACEAE	<i>Crassula exserta</i>		
CYPERACEAE	<i>Cyperus brevifolius</i>		Y
CYPERACEAE	<i>Cyperus tenuiflorus</i>		Y
FABACEAE	<i>Daviesia decurrens</i>		

Family	Species	Common Name	Weed
FABACEAE	<i>Daviesia nudiflora</i>		
FABACEAE	<i>Daviesia preissii</i>		
FABACEAE	<i>Daviesia triflora</i>		
RESTIONACEAE	<i>Desmocladius fascicularis</i>		
ASPARAGACEAE	<i>Dichopogon capillipes</i>		
ORCHIDACEAE	<i>Disa bracteata</i>		Y
SCROPHULARIACEAE	<i>Dischisma arenarium</i>		Y
DROSERACEAE	<i>Drosera erythrorhiza</i>		
DROSERACEAE	<i>Drosera glanduligera</i>		
DROSERACEAE	<i>Drosera macrantha</i>		
DROSERACEAE	<i>Drosera pallida</i>		
POACEAE	<i>Ehrharta longiflora</i>	Annual Veldt Grass	Y
ORCHIDACEAE	<i>Elythranthera brunonis</i>	Enamel Orchid	
MYRTACEAE	<i>Eremaea pauciflora</i>		
GERANIACEAE	<i>Erodium botrys</i>		Y
MYRTACEAE	<i>Eucalyptus marginata</i>	Jarrah	
MYRTACEAE	<i>Eucalyptus tottiana</i>		
PROTEACEAE	<i>Grevillea synapheae</i>		
IRIDACEAE	<i>Gladiolus caryophyllaceus</i>	Pink gladiolus	Y
FABACEAE	<i>Gompholobium knightianum</i>		
FABACEAE	<i>Gompholobium tomentosum</i>		
HAEMODORACEAE	<i>Haemodorum venosum</i>		
PROTEACEAE	<i>Hakea lissocarpha</i>		
PROTEACEAE	<i>Hakea ruscifolia</i>		
ASTERACEAE	<i>Helichrysum luteoalbum</i>		Y
DILLENIACEAE	<i>Hibbertia huegelii</i>		
DILLENIACEAE	<i>Hibbertia hypericoides</i>		
DILLENIACEAE	<i>Hibbertia lasiopus</i>		
DILLENIACEAE	<i>Hibbertia racemosa</i>		
DILLENIACEAE	<i>Hibbertia subvaginata</i>		
ASTERACEAE	<i>Hyalospermum cotula</i>		
ASTERACEAE	<i>Hypochaeris glabra</i>		Y
CYPERACEAE	<i>Isolepis marginata</i>		Y
CYPERACEAE	<i>Isolepis prolifera</i>		Y
FABACEAE	<i>Isotropis cuneiformis</i>		
FABACEAE	<i>Jacksonia floribunda</i>		
FABACEAE	<i>Jacksonia sternbergiana</i>		
JUNCACEAE	<i>Juncus pallidus</i>		
JUNCACEAE	<i>Juncus planifolius</i>		
FABACEAE	<i>Kennedia prostrata</i>		
MYRTACEAE	<i>Kunzea glabrescens</i>		
ASTERACEAE	<i>Lagenophora huegelii</i>		
GOODENIACEAE	<i>Lechenaultia biloba</i>		
GOODENIACEAE	<i>Lechenaultia floribunda</i>		

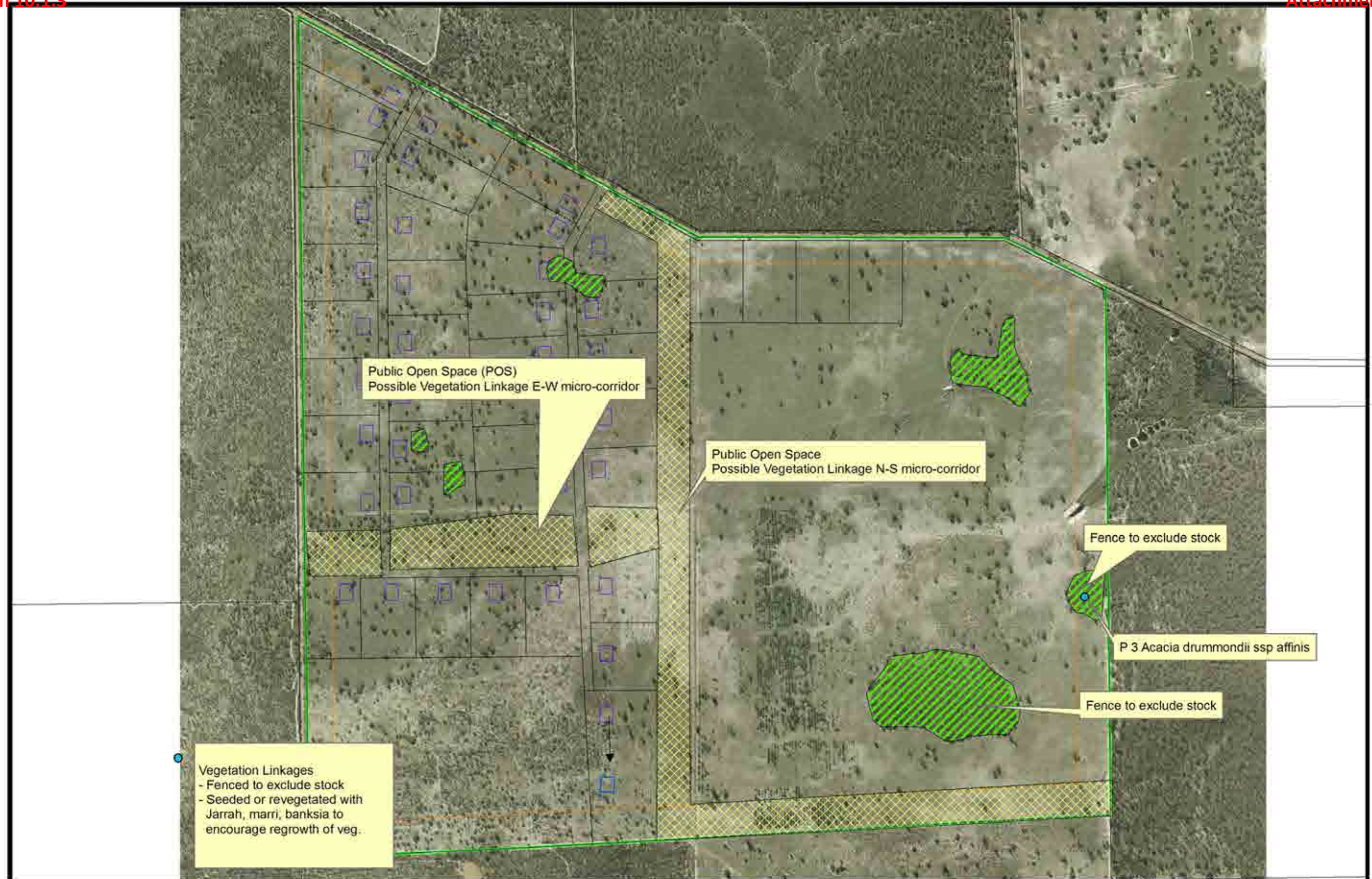
Family	Species	Common Name	Weed
ORCHIDACEAE	<i>Leporella fimbriata</i>	Hare orchid	
MYRTACEAE	<i>Leptospermum erubescens</i>		
MYRTACEAE	<i>Leptospermum spinescens</i>		
ERICACEAE	<i>Leucopogon nutans</i>		
ERICACEAE	<i>Leucopogon propinquus</i>		
CAMPANULACEAE	<i>Lobelia rhombifolia</i>		
ASPARAGACEAE	<i>Lomandra caespitosa</i>		
ASPARAGACEAE	<i>Lomandra hermaphrodita</i>		
ASPARAGACEAE	<i>Lomandra preissii</i>		
ASPARAGACEAE	<i>Lomandra sericea</i>		
FABACEAE	<i>Lotus subbiflorus</i>		Y
ZAMIACEAE	<i>Macrozamia reidlei</i>		
MYRTACEAE	<i>Melaleuca preissiana</i>		
MYRTACEAE	<i>Melaleuca trichophylla</i>		
RESTIONACEAE	<i>Mesomelaena pseudostygia</i>		
POACEAE	<i>Neurachne alopecuroides</i>		
LORANTHACEAE	<i>Nuytsia floribunda</i>		
FABACEAE	<i>Ornithopus compressus</i>		Y
FABACEAE	<i>Ornithopus sativus</i>		Y
OROBANCHACEAE	<i>Orobanche minor</i>		Y
SCROPHULARIACEAE	<i>Parentucellia viscosa</i>		Y
IRIDACEAE	<i>Patersonia occidentalis</i>		
GERANIACEAE	<i>Pelargonium capitatum</i>		
POACEAE	<i>Pentaschistis airoides</i>		Y
POLYGONACEAE	<i>Persicaria decipiens</i>		Y
PROTEACEAE	<i>Petrophile linearis</i>		
PROTEACEAE	<i>Petrophile macrostachya</i>		
PROTEACEAE	<i>Petrophile striata</i>		
CARYOPHYLLACEAE	<i>Petrorhagia dubius</i>		Y
RUTACEAE	<i>Philothea spicata</i>		
LOGANIACEAE	<i>Phyllangium paradoxum</i>		
EUPHORBIACEAE	<i>Phyllanthus calycinus</i>		
ASTERACEAE	<i>Podotheca gnaphalioides</i>		
POACEAE	<i>Polypogon monspeliensis</i>	Annual beardgrass	Y
ORCHIDACEAE	<i>Pterostylis nana</i>		
ORCHIDACEAE	<i>Pterostylis vittata</i>		
ORCHIDACEAE	<i>Pyrorchis nigricans</i>		
ASTERACEAE	<i>Rhodanthe citrina</i>		
IRIDACEAE	<i>Romulea rosea</i>	Guildford grass	Y
MYRTACEAE	<i>Scholtzia involucreata</i>		
ASTERACEAE	<i>Sonchus asper</i>		Y
ASTERACEAE	<i>Sonchus oleraceus</i>	Sowthistle	Y
STYLIDACEAE	<i>Stylidium hispidum</i>		
STYLIDACEAE	<i>Stylidium calcaratum</i>		

Family	Species	Common Name	Weed
PROTEACEAE	<i>Synaphea spinulosa</i>		
CYPERACEAE	<i>Tetraria octandra</i>		
TREMANDRACEAE	<i>Tetradlea hirsuta</i>		
FABACEAE	<i>Trifolium arvense</i>	Hare's foot clover	Y
FABACEAE	<i>Trifolium dubium</i>		Y
FABACEAE	<i>Trifolium hirtum</i>	Rose clover	Y
FABACEAE	<i>Trifolium subterraneum</i>	Subclover	Y
CELASTRACEAE	<i>Tripterococcus brunonis</i>		
ORCHIDACEAE	<i>Thelymitra sp</i>		
TYPHACEAE	<i>Typha domingensis</i>		
ASPARAGACEAE	<i>Thysanotus patersonii</i>		
ASPARAGACEAE	<i>Thysanotus tenellus</i>		
APIACEAE	<i>Trachymene pilosa</i>		
HEMEROCALLIDACEAE	<i>Tricoryne elatior</i>		
ASTERACEAE	<i>Ursinia anthemoides</i>		Y
ASTERACEAE	<i>Vellereophyton dealbatum</i>		Y
POACEAE	<i>Vulpia myuros</i>		Y
CAMPANULACEAE	<i>Wahlenbergia capensis</i>		Y
XANTHORRHOEACEAE	<i>Xanthorrhoea preissii</i>		
<b>Count</b>	<b>149</b>		<b>37</b>

**Appendix F**

Recommendations Mapping





### Legend

- P 3 Acacia drummondii ssp affinis
- Vegetative Linkages
- Jarrah - Marri JmCc

Scale  
1:11000 @ A3



0 90 180 360 540 720 Meters



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CLIENT Lot 1 and 2 Tee Tree Road  
Bindoon WA

### Recommendations Mapping

STATUS	FILE	DATE
FINAL	WHE014	20/01/2012



**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## APPENDIX 4 – BUSHFIRE MANAGEMENT PLAN

**Lots 1 and 2 Tea  
Tree Road,  
Bindoon WA**

# Bushfire Management Plan



13/06/2016

Kathryn Kinnear

Bio Diverse Solutions

**Page 195**

## DOCUMENT CONTROL

### TITLE

Lot 1 and 2 Tea Tree Road Bindoon Bushfire Management Plan

Author (s): Kathryn Kinnear

Reviewer (s): Steve Fernandez

Job No.: WHEL014

Client: Marou Property Development Pty Ltd

### REVISION RECORD

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Final	Issued to client with SP changes & review of legislation/guidelines	Kathryn Kinnear	17/04/2015
Final ID 24/8/2015	Updated SP	Kathryn Kinnear	24/08/2015
Final ID 13/6/2016	Updated to reflect new legislation	Kathryn Kinnear	13/6/2016

### **DISCLAIMER**

*The recommendations and measures contained in this assessment report are based on the requirements of the Australian Standards 3959 – Building in Bushfire prone Areas, WAPC SPP3.7, Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015) and CSIRO's research into Bushfire behaviour. These are considered the minimum standards required to balance the protection of the proposed dwelling and occupants with the aesthetic and environmental conditions required by local, state and federal government authorities. They DO NOT guarantee that a building will not be destroyed or damaged by a bushfire. All surveys and forecasts, projections and recommendations made in this assessment report and associated with this proposed dwelling are made in good faith on the basis of the information available to the fire protection consultant at the time of assessment. The achievement of the level of implementation of fire precautions will depend amongst other things on actions of the landowner or occupiers of the land, over which the fire protection consultant has no control. Notwithstanding anything contained within, the fire consultant/s or local government authority will not, except as the law may require, be liable for any loss or other consequences (whether or not due to negligence of the fire consultant/s and the local government authority, their servants or agents) arising out of the services rendered by the fire consultant/s or local government authority.*



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APPENDIX E – BAL CONTOUR PLAN

APPENDIX F – DFES INFORMATION FOR THE HOMEOWNER

APPENDIX G - BUSHFIRE MANAGEMENT PLAN



## 1. Introduction

Marou Property Development Pty Ltd commissioned Bio Diverse Solutions (Bushfire Consultants) to undertake a fire hazard assessment and prepare a Bushfire Management Plan to guide all future fire management for the proposed subdivision development of Lots 1 and 2 Tea Tree Road, Bindoon.

The basic requirements of any Bushfire Management Plan (BMP) is to identify potential issues or problems relating to environmental fire threats and recommend specific actions by certain persons, agencies, authorities and developers to ensure, as much as practical, that the lives and assets of the location are not put at undue threat from any unplanned fire event. A BMP takes into account various physical attributes of the land, including topographical and vegetation properties, local climatic impacts, past and current land use, past fire history and management practices, local authority fire management obligations, road access, water supplies, adjacent property and tenure, and future obligations by various parties should the subdivision application be successful.

Such planning takes into consideration standards and requirements specified in various documents such as Australian Standard (AS) 3959-2009, Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015) and State Planning Policy 3.7 (WAPC, 2015). These plans and guidelines have developed to ensure uniformity to bushfire management with interpretation of onsite vegetation types, site design, and building standards.

### 1.1. Statutory Conditions

This Bushfire Management Plan (BMP) has been prepared for Lot 1 and 2 Tea Tree Road Bindoon (refer to Appendix A for location of subject site) to address fire management issues associated with the proposed Structure Plan (SP) and is consistent with State and Local Government planning instruments.

On the 7<sup>th</sup> December 2015 the *Fire and Emergency Services (Bush Fire Prone Areas) Order 2015; Planning and Development (Local Planning Scheme) Amendment Regulations 2015; Planning and Development Act 2005 State Planning Policy 3.7 - Planning in Bushfire Prone Areas* and the *Building Amendment Regulations (No.3)* were published in the WA Government Gazette. The Western Australian State Bushfire Prone Mapping was also publicly released.

This means that:

- **Emergency Services (Bush Fire Prone Areas) Order 2015:** 4 (1) *The areas of the state described in the Bushfire Prone Areas dataset are designated as bush fire prone areas.*
- **Planning and Development (Local Planning scheme) Amendment Regulations 2015:** *Planning regulations that instigates a planning action if a dwelling is located in the Bushfire Prone Area Mapping. Can be a site specific BAL Assessment, BAL Contour Map, Bushfire Hazard Assessment or a Bushfire Management Plan action. If BAL 12.5 to BAL 29 dwelling can go straight to Building Application. If BAL 40 or BAL FZ then the development goes back into the planning system for assessment.*
- **Planning and Development Act 2005 State Planning Policy 3.7 (SPP 3.7)- Planning in Bushfire Prone Areas:** *The intent of this policy is to implement effective, risk based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. The application of SPP 3.7 applies to all higher order strategic planning documents, strategic planning proposals, subdivision and development applications located in designated bushfire prone areas.*
- **Building Amendment Regulations (No.3):** *Outlines the definition of the bushfire prone area as designated under the Fire and Emergency Services Act 1998 Regulation 31BA applicable building standards for buildings and incidental structures in bushfire prone areas.*

(WA Australian Government Gazette, 2015)

The publicly released bushfire prone mapping (Bushfire Prone Area Mapping, OBRM, 8/12/15) outlines the site to be Bushfire Prone as per the above regulations, as it is situated within 100m of



>1 ha of bushfire prone vegetation. Refer to extract from the Office of Bushfire Risk Management (OBRM) as released in December 2015 Appendix A.

This document and the recommendations contained are aligned to the following policy and guidelines:

- AS 3959-2009 “Construction of Buildings in Bushfire Prone Areas” current and endorsed standards;
- State Planning Policy 3.7 (SPP 3.7) Planning in Bushfire-Prone Areas (2015);
- Guidelines for Planning in Bushfire Prone Areas (2015);
- *Fire and Emergency Services (Bush Fire Prone Areas) Order 2015;*
- *Planning and Development (Local Planning Scheme) Amendment Regulations 2015;*
- *Bushfires Act 1954;* and
- Shire of Chittering Annual Fire Break Notice.

### **1.2. Suitably Qualified Bushfire Consultant**

This BMP has been prepared by Kathryn Kinnear (nee White), who has 10 years operational fire experience with the (formerly) DEC (1995-2005) and has the following accreditation in Bushfire Management:

- Incident Control Systems;
- Operations Officer;
- Prescribed Burning Operations;
- Fire and Incident Operations;
- Wildfire Suppression 1, 2 & 3;
- Structural Modules – Hydrants and hoses, Introduction to Structural Fires, and Fire extinguishers; and
- Ground Controller.

Kathryn Kinnear currently has the following Tertiary Qualifications:

- BAS Technology Studies & Environmental Management;
- Diploma Business Studies; and
- Graduate Diploma of Environmental Management.

Kathryn Kinnear is an accredited a Level 1 BAL Assessor (Accreditation No: BPAD30794) and is classified as an “Experienced Level 2/3 Practitioner” pending accreditation. Kathryn Kinnear is presently a member of Fire Protection Australia Association and a committee member of the Bushfire Subcommittee Western Australia. Kathryn is a suitably qualified Bushfire Practitioner to prepare this Bushfire Management Plan.

### **1.3. Other documents relating to this plan**

Other documents that have been prepared for this subdivision proposal which should be consulted when reading this plan include:

- Lot 1 and 2 Tea Tree Road Planning Report – Whelans (2015);
- Vegetation Assessment – Bio Diverse Solutions (2012); and
- Land Capability Report – Landform Research (2000).

## 2. Aims of this Plan

The aim of this Plan is to reduce the occurrence of, and minimise the impact of bushfires, thereby reducing the threat to life, property and the environment. This BMP has been prepared by Bio Diverse Solutions (Bushfire Consultants) with the “subject site” being Lots 1 and 2 Tea Tree Road, Bindoon see Appendix A.

### 2.1. Planning Context

The BMP has been prepared to support an Structure Plan (SP) at Lots 1 and 2 Tea Tree Road, Bindoon, refer to Appendix B.

### 2.2. Site inspection

To ensure that every aspect of the proposed subdivision meets the planning requirements as set in the Guidelines for Planning in Bushfire Protection (WAPC, 2015a), a site inspection was initially undertaken on the 13th October 2011 by Kathryn Kinnear (Bio Diverse Solutions) to assess the vegetation and the site conditions. A subsequent site visit was undertaken in March 2016 to assess any change in the classifiable vegetation to AS3959-2009.

The site was assessed as having an **Extreme- Moderate** Bushfire Hazard Level (BHL) due to internal and external patches of forest, woodland and scrub remnant native vegetation areas. Upon completion there will be internal (built/rural small holdings) areas of **Moderate - Low** BHL. Where a subdivision is located within an extreme or moderate BHL, the Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015a) requires assessment to the bushfire protection criteria – a process where subdivisions are assessed for compliance to the criteria. The bushfire protection criteria (Appendix 4, WAPC, 2015a) are a performance based criteria in assessing bushfire risk management measures and they outline four “Elements”. The “Elements” which are to be met either through the objectives of the “Performance Principle” or “Acceptable Solutions” (WAPC, 2015a) for the subject site include:

- Element 1 - Location;
- Element 2 - Siting and design of development.
- Element 3 - Vehicular access; and
- Element 4 – Water.

(WAPC, 2015)

This BMP has been prepared to assess the site against the “Acceptable Solutions” of the bushfire protection criteria.

### 2.3. Objectives

The objectives of this BMP are:

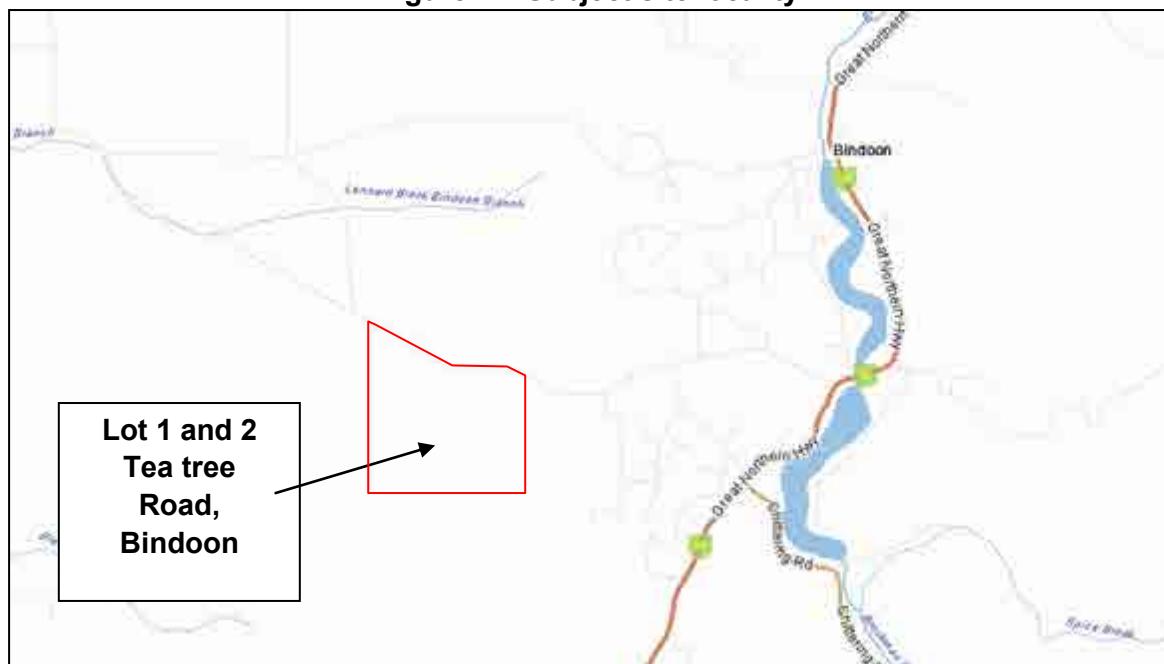
- Achieve consistency with objectives and policy measures of SPP 3.7 (WAPC, 2015b);
- Assess any building requirements to AS3959-2009 (current and endorsed standards) and BAL Construction;
- Assess the subdivision proposal against the Bushfire Protection Criteria Acceptable Solutions as outlined in the Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015a);
- Understand and document the extent of the bushfire risk and hazards to the subject site
- Prepare bushfire mitigation and management measures of all land within the subject area with due regard to people, property, infrastructure and the environment;
- Nominate individuals and organisations responsible for bushfire management and associated works within the subject area; and
- Aligned to the recommended assessment procedure (SPP3.7, WAPC, 2015b) & Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015a) which evaluates the effectiveness and impact of proposed, as well as existing, bushfire risk management measures and strategies.

### 3. Description of the area

#### 3.1. Location

The subject site is located south of Tea Tree Road and east of Brennan Road, approximately 10 km's south of Bindoon town site in the municipality of the Shire of Chittering (SoC). The subject site is a 484ha rural lot which has been used for primarily for the grazing of stock. Please refer to Figure 1 below - Locality Map, and Site Location Mapping Appendix A.

**Figure 1 – Subject site locality**



#### 3.2. Development proposal

The development proposal includes the creation of 48 lots (47 Rural Small Holding zoning and 1 Rural zoning lot). The Rural Small Holding lots are ranging in size from 5.01ha to 5.44ha. In creating the subdivision the developer proposes to implement "Vegetative Corridors" to increase linkages to remnant vegetation from the north-south and east-west.

Please refer to the Structure Plan as provided by Whelans, Appendix B.

#### 4. Desktop Assessment – Regional Setting

##### 4.1. Current site land use

The site is currently 2 rural lots of predominantly cleared paddocks with grasslands and small isolated patches of remnant vegetation, newly installed vineyards and tagasaste plantation. Historically the subject area has been used for sheep and cattle grazing. An abandoned shack exists in Lot 1 (south west corner) and some shed buildings are located in Lot 2 associated with the rural activities. Please refer to Photograph 1 to 3 below.



**Photograph 1** – View of abandoned shack in Lot 1 (south west of subject area).



**Photograph 2** – View of shed infrastructure in Lot 2, associated with rural activities.



**Photograph 3** – View of stock on site.

##### 4.2. Climate

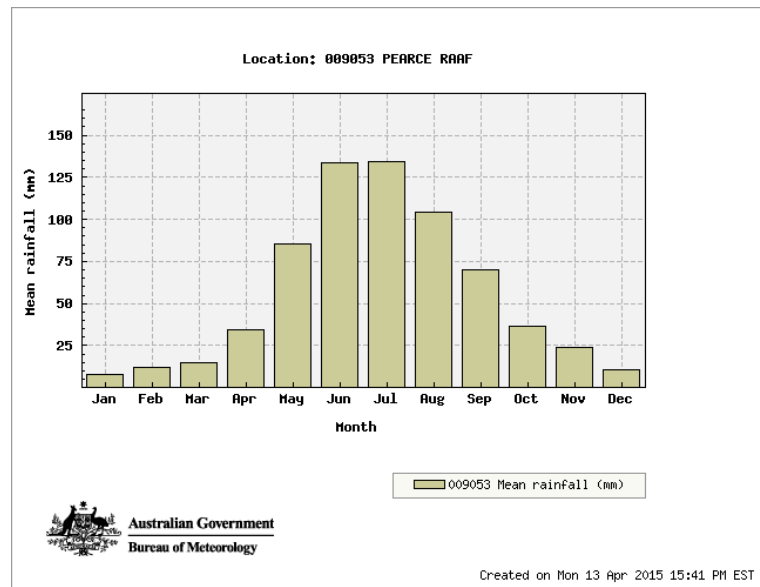
Bindoon has similar climate to Perth (75 Km away) and thus has been described as per Bureau of Meteorology (BoM) descriptions of Perth. Perth experiences a Mediterranean climate, characterised by hot, dry summers and mild, wet winters. These seasons extend into the autumn and spring months, which are transitional periods between the main seasons.

The climate of the region is strongly influenced by the position of the axis of the band of high pressure known as the sub-tropical ridge, and in the warmer months by the development in the easterlies to the north of the ridge of a trough of low pressure near the West Coast. For much of the year the ridge is located to the south allowing the east or south easterly winds to prevail. During the cooler months the ridge periodically moves to the north allowing cold fronts to pass over the west coast and deliver much of the annual rainfall. Sometimes these fronts interact with tropical cloud bands from the northwest and this can enhance the amount of rainfall produced.

#### 4.2.1. Rainfall

The annual mean rainfall of 678.3 mm (BoM, 2015) occurs on 119 rain days, of which 80% usually falls between May and September. Rain occurs on four days out of every seven on average during winter. Flooding is rare in Perth, however heavy rain may be produced by strong winter cold fronts or, less frequently, by summer storms or, more rarely, by decaying tropical cyclones. The highest daily rainfall is 120.6 mm recorded on 9 February 1992. In contrast to winter rainfall, the mean summer rainfall is just 36 mm on an average of 10 rain days. It is not unusual for there to be extended dry periods during the warmer months. Please refer to Pearce RAAF BoM rainfall records (closest climate statistics), Annual Rainfall graph below (Figure 2).

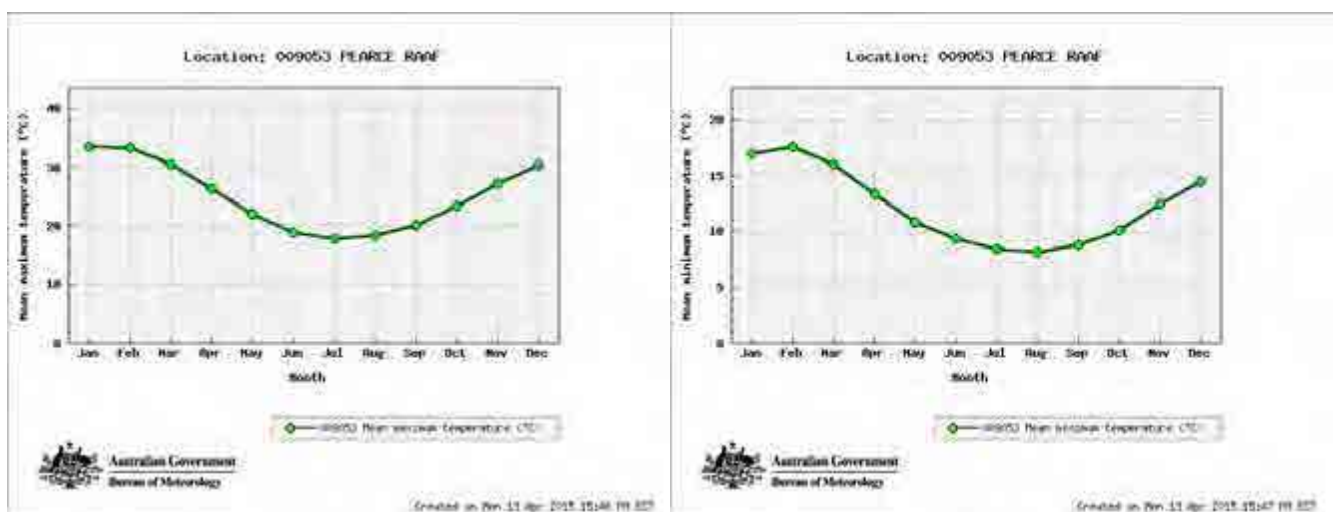
**Figure 2 – BoM Rainfall for Pearce (BoM) Station 9053**



#### 4.2.2. Temperature

Mean monthly air temperature range from 33.5°C in January to 17.8°C in July (BoM, 2015). Summer maximum temperatures are strongly dependent upon the arrival time of the reliable sea breezes. On some days the difference between the maximum temperatures on the coast and the eastern suburbs may exceed 10°C. Heatwaves are associated with strong easterly winds and the late arrival or absence of the sea breeze. The highest temperature ever recorded is 46.2°C, however, the temperature exceeds 40°C on only three days per year on average. The average minimum temperature ranges from just 8.2°C in August to 17.6°C in February (BoM, 2015). Temperatures below 5°C are not uncommon during any of the winter months. Please refer to average temperatures below for Gingin (40km away), Figure 3.

**Figure 3 – Average Temperatures BoM Pearce RAAF (BoM 9053)**

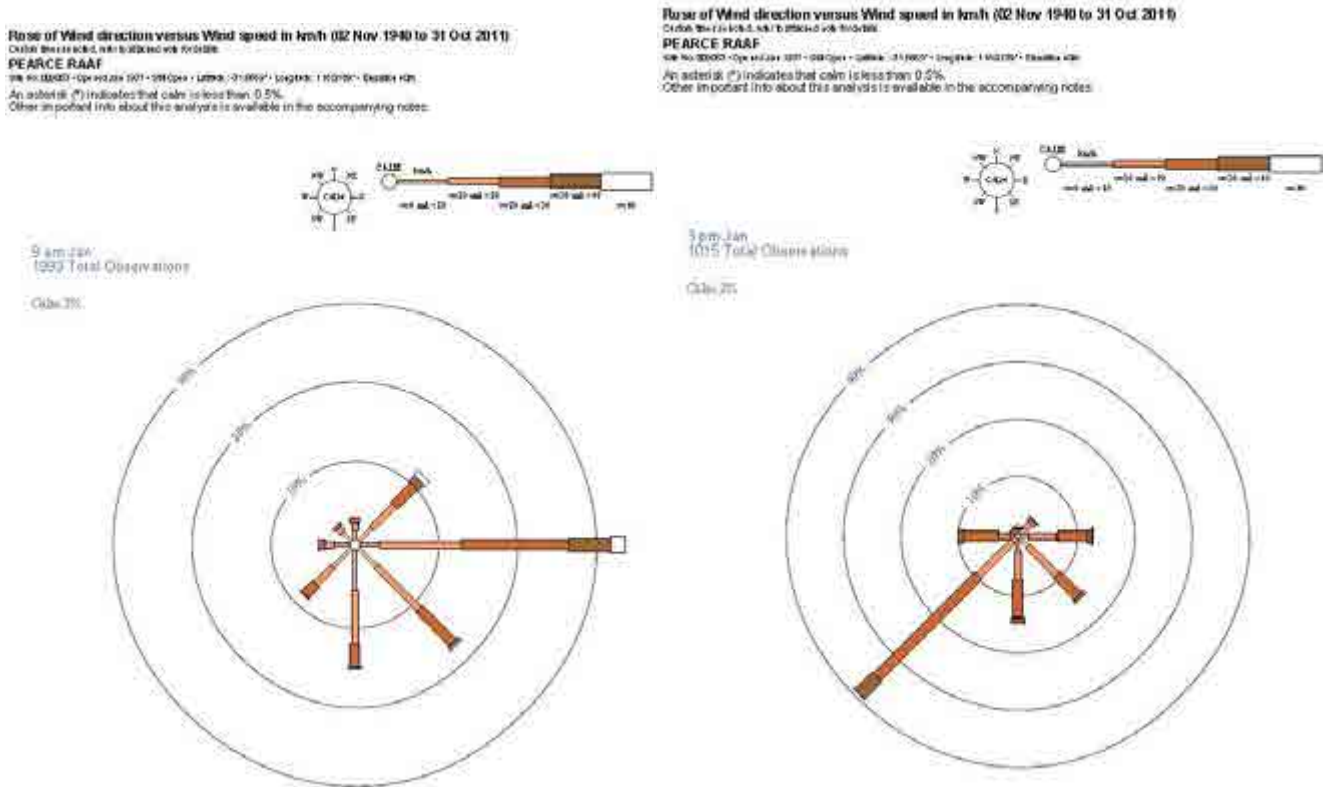




### 4.2.3. Wind

Winds are mainly easterly but varied in the warmer months by reliable afternoon sea breezes from the south west and in the cooler months by the westerlies that are associated with the bulk of the annual rainfall. Despite the occurrence of strong winds or gales, average wind speeds in winter are considerably lighter than in summer. Please refer to Figure 4 and 5 below.

**Figure 4 – Summer (Jan) wind rose 9am & 3pm BoM Pearce RAAF Stn**





### 4.3. Prevalent Fire Weather

Fire weather is characterised by mid-level disturbances across the south west of Western Australia, bringing unstable atmospheric conditions (thunder and lightning) from the north or north-west wind directions. This is characteristic of “Extreme” Fire Weather conditions to the area with hot dry conditions prior to storm events. Risk of lightning strikes, spark ignition, arson and other causes of fire give rise to wild fires under these conditions.

Prevalent winds which most wildfire events occur in the region are from the north-west, east and north-east direction. Conditions tend to be dry with low relative humidity. High winds and excess fuels can lead to hazardous conditions for residents. Strong easterly and south westerly winds exist at the subject site during dry summer periods (Figure 4). These circumstances place residential housing under the most risk from bushfire events.

#### 4.3.1. Climate Change

Climate change is expected to impact on the future rainfall pattern of the area. It is recognised that the average rainfall has already declined by 20%-30% over the past few decades and that the long term impact of climate change may lead to a shift in rainfall, as well as dryer climatic conditions for the region. The long term changes are predicted to impact on the flora, fauna and water availability for the region. (Climate Commission 2010)

The Climate Commission (Climate Commission 2010) estimates that

*“...Rainfall patterns in Western Australia have changed over the last 40 years. There is significant evidence that climate change has contributed to the marked drying trend in the southwest of the state.”*

The construction of the proposed development is not predicted to be affected by sea-level rise, however could be affected from increased intensity rainfall events or extended drying periods. Increased extreme weather from climate change could affect fire frequency and behaviour in Western Australia (DEC, 2012), this BMP has been prepared to reduce the risk of bushfire on the proposed residential dwelling of the property.

### 4.4. Topography




The subject site is located in an undulating landscape on the Dandaragan Plateau with the average “Effective Slope” (as per AS3959-2009) slope for the site as 1.7 ° (assessed as an average over 5 slopes/100m) calculated to be < 5° and ranges between 1° and 3°. One metre contours indicate there are 2 hills in the western portion up to 201m AHD and one dominant ridge in the south east of the subject site upto 208m AHD. The lowest elevation of the site is in the east along the formation of a creek (upper catchment) at 168m AHD.

### 4.5. Bushfire fuels – Vegetation

The subject lies within the Swan IBRA bioregion. This bioregion is comprised of “*low lying coastal plain, mainly covered with woodlands. It is dominated by Banksia or Tuart on sandy soils.*” The area is located within the SWA1- Dandaragan Plateau. *The plateau is bordered by Derby and Dandaragan Faults. Cretaceous marine sediments are mantled by sands and laterites. Characterised by Banksia low woodland, Jarrah - Marri woodland, Marri woodland, and by scrub-heaths on laterite pavement and on gravelly sandplains.* (Hearn et al., 2002).

Detailed vegetation inventory was undertaken in the vegetation types identified on site (Bio Diverse Solutions, 2012). A total of 149 species was identified within 3 vegetation types. The vegetation types are shown over the page in Table 1 as described in 2012.

**Table 1 – Vegetation Types Identified on site (from Flora and Vegetation survey 2012)**

Vegetation Unit	Planning for Bushfire Protection (2010) Vegetation Type	Site Description	Unit	Photograph
<b>Medium woodland; jarrah-marri (EmCc)</b>	Type B - Woodland	Medium woodland of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i>		
<b>Mosaic Medium open woodland: jarrah, marri &amp; banksias (EmCcBa),</b>	Type B - Woodland	Medium open woodland: Jarrah & Marri, with low woodland Banksia/sparse woodland jarrah/marri		
<b>Cleared paddock areas</b>	Type G - Grassland	Open paddocks, cleared of native vegetation, occasional paddock trees Jarrah & Marri,		

(Bio Diverse Solutions, 2012)

The eastern portion of the subject area (in 2012) was predominantly pasture with little to no paddock trees. In 2016 site assessment revealed the eastern paddocks were continued to be grazed and managed in a low fuel state. The western area of the subject site was assessed in 2012 as being “grassland”, in 2016 it was noted this area has not been grazed in some time and is now predominantly classified as Woodland Type B, where the grasses are exceeding 200-.300mm, trees are exceeding 10% coverage and there is regrowth of scrubs and shrubs.

Internal to the site remnant patches of Jarrah/Marri Woodland occurs, which in 2012 (site first assessed) was generally lacking in midstorey and understorey species due to grazing of stock. In 2016 site assessment has again classified this as Woodland Type B, however the stock grazing has discontinued and this area is now more extensive across the internal site in eastern areas.



External to the site there is forest Type A (north, west and east). These areas are typically Jarrah, Casuarina and Marri mix with Banksia and shrub understoreys.


These vegetation types in 2016 are classified as per AS3959-2009 (Table 2.3) criteria as:

- **Forest (Type A)** – *Trees 10-30m high: 30-70% foliage cover (may include understorey of sclerophyllous low trees and tall scrubs or grass). Typically dominated by eucalypts.* Jarrah, Marri and Casuarina multilayered forests to the north, west and east external to the site.
- **Woodland (Type B)** – *Trees 10 -30 m in high; 10-30% foliage cover dominated by Eucalypts; understorey low trees to tall shrubs dominated by Acacia, Callitris or Casuarinas* (WAPC 2010); Jarrah/marri woodland and Mosaic Jarrah & Marri, with low woodland Banksia/sparse woodland Jarrah/Marri located adjacent and internal to the Subject Site in western areas – ungrazed for some time.
- **Scrub (Type D)** – *Shrubs greater than 2m high; 10-30% foliage cover with a mixed species composition.* Banksia scrub to the east of the subject site (external).
- **Grassland (Type G)** – *Open paddock areas, overstorey foliage <10%.* (WAPC 2010), open paddock areas located internal and adjacent to the Subject Site.


Please refer to Table 2 below showing vegetation types classified in March 2016 as per above and shown in Vegetation Classes Map Appendix C.

**Table 2 – Vegetation Classifications AS3959 -2009 Tea Tree Road**


Plot 1	Classification or Exclusion Clause	Forest Type A
		Jarrah/Marri low forest Multi-layered vegetation (fuels), grasses/sedges understorey, shrubs 1-3m midstorey Canopy >30% coverage Trees 10-12m High (30-70% vegetative/foliage cover). Fuel loading 25T/ha -35T/ha
<i>Photo ID: Photo 1 view of Forest Type A located north of Tea Tree Road in private property. View from Tea Tree Road from the south to north.</i>		
Plot 1 cont	Classification or Exclusion Clause	Forest Type A
		Casuarina/Jarrah/Marri low forest Multi-layered vegetation (fuels), grasses/sedges understorey, shrubs 1-3m midstorey Canopy >30% coverage Trees 10-12m High (>30-70% vegetative/foliage cover). Fuel loading 25T/ha -35T/ha
<i>Photo ID: Photo 2 view of Forest Type A located east of subject site in private property. View from eastern boundary from west to east.</i>		

Plot 1 cont	Classification or Exclusion Clause	Forest Type A
		<p>Casuarina/Jarrah/Marri low forest</p> <p>Multi-layered vegetation (fuels), grasses/sedges understorey, shrubs 1-3m midstorey</p> <p>Canopy &gt;30% coverage</p> <p>Trees 10-12m High (&gt;30-70% vegetative/foilage cover).</p> <p>Fuel loading 25T/ha -35T/ha</p>

*Photo ID: Photo 3 view of Forest Type A located north of the subject site in private property. View from Tea Tree road from south to north.*




Plot 2	Classification or Exclusion Clause	Woodland Type B
		<p>Jarrah/Marri Woodland</p> <p>Single -layered vegetation (fuels), grasses/sedges understorey</p> <p>Canopy &lt;30% coverage</p> <p>Trees 8-10m High (&lt;30% vegetative cover).</p> <p>Fuel loading less than 15T/ha</p>

*Photo ID: Photo 4 view of Woodland Type B to the east (internal) of the site view from Brennan road from the west to the east.*

Plot 2 cont	Woodland Type B	Classification or Exclusion Clause	Woodland Type B
			<p>Jarrah/Marri Woodland</p> <p>Single -layered vegetation (fuels), grasses/low sedges and Grass trees understorey (&lt;1m)</p> <p>Canopy &lt;30% coverage</p> <p>Trees 8-10m High (&lt;30% vegetative cover).</p> <p>Fuel loading 15T/ha</p>

*Photo ID: Photo 5 view of Woodland Type B to the east (internal) of the site. View from Brennan Road from the west to the east.*



Plot 3	Classification or Exclusion Clause		Scrub Type D
			<p>Banksia Woodland            Trees and shrubs 2-10m high            10-30% foliage cover            Canopy &lt;30% coverage            Small shrubs understorey (&lt;30% vegetative cover).            Fuel loading less than 15-25T/ha</p>
	Photo ID: Photo 6 view of Woodland Type B to the west of the site adjacent to Brennan Road. View from east to west.		
Plot 4	Grassland Type G	Classification or Exclusion Clause	Grassland Type G
			<p>Grasses grazed by sheep            &lt;100mm high            Occasional trees (&lt;10%)</p>
	Photo ID: Photo 7 view of Grassland Type G internal to the site (central areas), view from Tea Tree Road to the south.		
Plot 4 cont	Classification or Exclusion Clause		Grassland Type G
			<p>Grasses grazed by sheep            &lt;100mm high            Little to no trees</p>
	Photo ID: Photo 8 view of Grassland Type G internal to the site (eastern areas), view from tea Tree Road from the north west to south east		

#### 4.6. Assets

The subject site is predominantly cleared of remnant vegetation, with some isolated remnant vegetation patches which have been grazed. The site is valued for its proximity to the Bindoon townsite and Perth city, remnant vegetation and sandy soils (where perennial horticulture i.e. vineyards are being established).

Once developed, the values which will be potentially affected by fire include:

- **Human lives:** It is likely that more than 110 people could be resident at the newly created subdivision;
- **Assets:** The development will contain dwellings and valuable infrastructure; and
- **Environmental Conservation Values:** the site has internal remnant (forest) vegetation areas in western portions of the site which have vegetation conservation values.

#### 4.7. Access

Vehicle access to the subject site is from Tree Road and Brennan Road in the west. An internal informal 4 x 4 track services paddocks and water supplies for grazing stock. Please refer to Photo 9 and 10 below



Photo 9 – View of Tea Tree Road to the north of the subject site



Photo 10 – View of Brennan Road to the west of the subject site

#### 4.8. Water Supply

There is presently no developed land within the subject site. Water is presently gained from a dam in the east and pumped via windmill across the property. Please refer to Photograph 11.



Photo 11 – View of dam in Lot 1 Tea Tree Road.



**4.9. Firebreaks**

There are existing firebreaks to SoC required standards around the property, refer to Photo 12.



Photo 12 – View of existing firebreaks along perimeter of property.

## 5. Potential Fire Issues and Fire Risk

The bushfire hazard assessment provides a measure of the fire intensity and likelihood of bushfire attack measures on a dwelling, subdivision or residential area (Planning for Bushfire Protection, Edition 2 2010). This measure can provide an assessment of the land for suitability for residential construction and takes into account:

1. Vegetation Assessment – type and class in each direction;
2. Distance - between the predominant vegetation class and proposed building;
3. Topography and slope – with reference to accessibility; and
4. Land use – surrounding and internal to the proposal.

(Planning for Bushfire Protection, Edition 2, 2010)

The Vegetation type for the subject site (within 100m) has been classified as per AS3959-2009 as Forest Type A, Woodland Type B, Scrub Type D and Grassland Type G (as per vegetation classifications outlined in AS3959-2009, Table 2.3). The bushfire hazard Level (BHL) ratings have been assessed as per the methodology as outlined in the Guidelines for Planning in Bushfire Prone Areas (WAPC 2015a). Please refer to Table 3 below.

**Table 3 – Bushfire Hazard Level (BHL) Categories**

Table 3: Hazard levels and characteristics

HAZARD LEVEL	CHARACTERISTICS
<b>Low</b>	<ul style="list-style-type: none"> <li>• devoid of standing vegetation (less than 0.25ha cumulative area);</li> <li>• areas which, due to climatic conditions or vegetation (e.g., rainforest), do not experience bushfires;</li> <li>• inner urban or suburban areas with maintained gardens and very limited standing vegetation (less than 0.25ha cumulative area);</li> <li>• low threat vegetation, including grassland managed in a minimal fuel condition (i.e. to a nominal height of 100mm), maintained lawns, vineyard and orchards; and</li> <li>• pasture or cropping areas with very limited standing vegetation that is shrubland, woodland or forest with an effective up slope*, on flat land or an effective down slope* of less than 10 degrees, for a distance greater than 100 metres;</li> </ul>
<b>Moderate</b>	<ul style="list-style-type: none"> <li>• areas containing pasture or cropping with an effective down slope* in excess of 10 degrees for a distance greater than 100 metres;</li> <li>• unmanaged grasslands;</li> <li>• open woodlands;</li> <li>• open shrublands;</li> <li>• low shrubs on areas with an effective up slope*, on flat land or an effective down slope* of less than 10 degrees, for a distance greater than 100 metres or flat land;</li> <li>• suburban areas with some tree cover; and</li> <li>• forest and woodlands with a permanent grass understorey or at most, a scrub understory structure consisting of multiple areas of &lt;0.25ha and not within 20 metres of each other or single areas of &lt;1ha and not within 100 metres of other scrub areas.</li> </ul>
<b>Extreme</b>	<ul style="list-style-type: none"> <li>• forests with a scrub understorey which is multi-tiered;</li> <li>• woodlands with a scrub understorey which is multi-tiered;</li> <li>• tall shrubs; and</li> <li>• any area of vegetation not otherwise categorised as low or moderate.</li> </ul>

(WAPC, 2015a)

### **Internal Bushfire Hazard Levels (BHL)**

The subject site has sustained vegetation clearing and grazing by sheep. In eastern areas of the site it is predominantly a cleared landscape representing a **“Low”** BHL as defined by Table 3 (WAPC, 2015a). In the western portions of the site the previously grazed areas has regenerated and now forms a Woodland Type B landscape which is a Moderate BHL (Open Woodlands). The Woodlands in the south west of the property are regenerating (still degraded from previous grazing) and are classified as a **“Moderate”** BHL as defined by Table 3 (WAPC, 2015).

There are low effective slopes for the site, with all slopes <5°. Refer to Bushfire Hazard Level Mapping, Appendix D.

**External Bushfire Hazard Level (BHL)**

Surrounding the subject site to the west, north and east west there is remnant bushland with cleared paddocks to the south. The predominant fire risk associated with the site is the adjacent Forests to the north, west and east which is an “**Extreme**” BHL as defined by Table 3 (WAPC, 2016). The external Woodland and Scrub vegetation are classified as a “**Moderate**” BHL as defined by Table 3 (WAPC, 2015).

Bushfire risk increases with slope, which with hot conditions can give rise to hot and intense fires in north (Summer mid-level disturbances) and easterly (prevailing summer) wind conditions. Slopes are generally low being <5° within 100m of the subject site.

The predominant extreme fire weather in summer conditions can give rise to flame and ember attack from north and north west wind directions (mid level disturbances) and from the east and south west (summer prevailing winds, see Figure 4).

Refer to Bushfire Hazard Level Mapping, Appendix D.

**Proposed Subdivision Fire Risk Rating**

The fire risk for this subdivision has been rated at **Extreme - Moderate BHL** as defined by Table 3 (WAPC, 2015).

Setback distances of over 100m from native vegetation (Bushfire Prone Vegetation) cannot be achieved for all the lots. Where 100m cannot be achieved from dwellings to Bushfire Prone Vegetation, the Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015) states that Building to Bushfire Attack Levels (BAL) and AS3959-2009 can apply to dwellings to assist in achieving “Acceptable Solutions” to the subdivision. Where a building is located within the State Gazetted Bushfire Prone Area Mapping (OBRM, 2015), the *Planning and Development (Local Planning Schemes) Amendment Regulations 2015* states that building to Bushfire Attack Levels (BAL) and AS3959-2009 is to apply to dwellings.

The subdivision (and proposed dwellings) will be located within 100m of Bushfire Prone vegetation and is located within the WA State Bushfire Prone Area (OBRM, 2015) mapping. The proposal will require assessment to the bushfire protection criteria as per the newly released “Guidelines for Planning in Bushfire Prone Areas” (WAPC, 2015a). These are outlined in Section 6 –**Assessment to Bushfire Protection Criteria**.

## 6. Bushfire Management/Mitigation Plan

The Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015a) outlines bushfire protection criteria which subdivisions and development proposals are assessed for compliance. The bushfire protection criteria (Appendix 4, WAPC, 2015) are a performance based criteria utilised to assess bushfire risk management measures and they outline four elements, being:

- Element 1: Location
- Element 2: Siting and Design of Development
- Element 3: Vehicle Access; and
- Element 4: Water

(WAPC, 2015)

The plan of subdivision for Lot 1 and 2 Tea Tree Road Chittering is required to meet the “Performance Principles” and/or “Acceptable Solutions” of each Element of the bushfire mitigation measures (WAPC, 2015). The site has been classified as having a “**Low- Moderate**” future internal bushfire hazard in the development/building areas, with adjacent “**Extreme**” and “**Moderate**” bushfire hazards (as per WAPC Guidelines, Table 3) due to the presence of Forest Type A, Woodland Type B, Scrub Type D and Grassland Type G. Effective Slopes under vegetation are variable across the site are low <5°.

The subdivision will be assessed against the bushfire protection criteria Acceptable Solutions for Elements A1, A2, A3 and A4. The following sections of this report outlines how the subdivision complies with the bushfire protection criteria Acceptable Solutions as per the newly released Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015a).

### 6.1. Element 1: Location-

Intent: To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.

#### **Assessment to the Acceptable Solutions.**

**Acceptable Solution applied A1.1:** *the strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low Bushfire hazard level, or BAL-29.*

The subdivision can associated new dwellings can be located on BAL Low areas. The previously cleared areas (now regrowing from cessation in farm activities) can be slashed, mowed and maintained in a Low Fuel State (as per AS3959-2009 Clauses 2.2.3.2 (f)). The subdivision has a **Moderate- Extreme** rating due to the presence of remnant external Forest, Scrub and woodland areas (north, south and west). The bushfire hazard level is manageable and adequate setbacks can be achieved to 100m from these areas due to the large lots proposed. The large size lots (Rural Small Holding zoning) ranging from 5.01ha to 5.44ha allow for setbacks to bushfire hazards, therefore reducing the risk of bushfire to people, property and infrastructure. If dwellings do not located >100m from classifiable vegetation then building to AS3959-2009 will apply.

Subdivision is deemed to meet Acceptable Solution A1.1.

#### **6.1.1. Recommendations arising from assessment to this element**

The recommendations/conclusions from assessment to Element 1: Location concludes that the subdivision:

- Subdivision is deemed compliant to A1.1 due to :
  - BAL Allocation can apply of BAL-Low through re-clearing previously cleared areas.
  - If vegetation continues to re-grow without maintenance then BAL and building to AS3959-2009 will apply where 100m setbacks cannot be achieved.

## 6.2. Element 2: Siting and design of development

Intent: To ensure that the siting of development minimises the level of bushfire impact.

**Assessment to the Acceptable Solutions** – To achieve compliance with this Element using an Acceptable Solution, either or both acceptable solutions (A2.1 and A2.2) must be met that it satisfies Element 1.

The Acceptable Solutions which will be applied to this subdivision include:

- **A2.1: Asset Protection Zone (APZ):** Every building is surrounded by a 20m APZ (see Section 6.2.2).
- **A2.2 Hazard Separation:** Building to AS3959-2009 where setbacks of 100m cannot be achieved to Bushfire Prone Vegetation (see Section 6.2.1).

The subdivision will be assessed to the Acceptable Solutions for Element 2 as demonstrated in the following sections.

### 6.2.1. Asset Protection Zones (APZ) (Acceptable Solution A2.1)

#### Acceptable Solutions applied

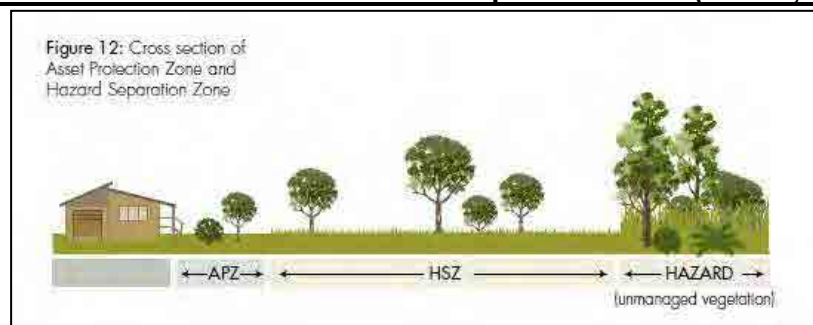
The aim of the Asset Protection Zone (APZ) is a low fuel area immediately surrounding a habitable building, and is designed to minimise the likelihood of flame contact with buildings (WAPC, 2015). APZ will minimise the risk of the building igniting, (thus protecting the occupants), and with the reduced fuel quantities, allow safer and more effective conditions for fire-fighters to contain wildfires. Roads, pathways, lawns, and other low hazard items should be placed within this zone to improve the effectiveness of the zone. The APZ are required in addition to HSZ (see Section 6.2.2).

Every building must be surrounded by a 20 metre wide APZ, this is deemed by WAPC (2015) as the minimum width to be constructed around all buildings as a “defendable zone”. Activity within the APZ (WAPC, 2015) for each individual dwelling must meet the following requirements:

- a) Width: 20 metres measured from any external wall of the building or building envelope;
- b) Location: within the boundaries of the lot on which the building is situated;
- c) Fine fuel load: reduced to and maintained at 2 tonnes per hectare;
- d) Trees (crowns) are a minimum of 10 metres apart
- e) Trees are low pruned at least to a height of 2 metres;
- f) No tall shrub or tree is located within 2 metres of a building;
- g) No tree crowns overhang the building;
- h) Fences and sheds within the APZ are constructed using non-combustible materials (e.g. colour bond iron, brick, limestone, metal post and wire); and
- i) Sheds within the APZ should not contain flammable materials.

An example of APZ from the “Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015) is shown in Figure 6.

**Figure 6 – Asset Protection Zone and Hazard Separation Zone (WAPC, 2015)**



(WAPC, 2015 a)



All residences within the proposed subdivision can achieve the required 20m APZ within their respective boundaries. Information on long term maintenance of APZ for the homeowner, as recommended by DFES is provided in Appendix F.

### 6.2.2. Hazard Separation (Acceptable Solution A2.2)

BAL is the process for measuring the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact. The threat or risk of bushfire attack is assessed by an accredited BAL Assessor. BAL rating determinations are of 6 levels BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40, BAL-FZ. Building is generally not recommended in BAL-40 or BAL-FZ areas. The BAL rating is determined by the distance of the building to vegetation, slope and vegetation type adjacent to the dwelling. Refer to Figure 9 below.

**Figure 9 - BAL Construction levels in context**



(WAPC, 2015a)

Building design and construction to AS3959-2009 is a standard primarily concerned with improving the ability of buildings in designated bushfire prone areas to better withstand attack from bushfire thus giving a measure of protection to the building occupants (until the fire front passes) as well as to the building itself. The construction standards outlined in AS 3959-2009 provide reference to specific items of building and it is recommended that the future lot owner discuss these in detail with their builder or architect. Table 2 outlines some of the construction consideration to AS3959-2009 when building in bushfire prone areas. Construction standards are to be approved by the CoA prior to construction. Building to AS3959-2009 applies to buildings as defined in the Building Code of Australia (BCS).

**Table 2 – AS3959-2009 Construction Requirement (Example)**

Construction requirement AS3959-2009
Flooring systems
Supporting posts, columns, stumps, piers and
External Walls
Windows
External Doors
Vents and weep holes
Roof
Eaves
Fascia's
Gutters and downpipes
Veranda and decks
Service Pipes (water and gas)



The subdivision will comply to Acceptable Solution A2.2 by applying either a 100m Hazard Separation Zone (HSZ) (i.e. 100m setback) at the interface of the building and the bushfire hazard or a setback associated with BAL construction and AS3959-2009 as outlined in the BAL Contour Map outlined in Appendix E. No higher BAL allocation than BAL 12.5 needs to be applied to the dwellings.

**Table 3 – Minimum Setback Distances and Construction Standards**

BAL Rating	Vegetation Type	Distance to Vegetation	Construction
BAL 29	Woodland Type B	17-<25m	AS3959-2009 to apply
BAL 19	Woodland Type B	25-<35m	AS3959-2009 to apply
BAL 12.5	Woodland Type B	35-<100m	AS3959-2009 to apply
No BAL Rating Required	All Vegetation	>100 metres	No construction standards required

Vegetation is downslope and >0 to 5 Degrees (as per AS3959-2009).

**Notes on BAL Assessment:**

- **Sites affected by BAL will be subject to detailed feature survey and the mapping depicted in the BAL Mapping Appendix E is a guide, with accuracy to within 5m.**
- **If dwellings cannot achieve >100m from the adjacent vegetation then BAL Construction will apply as outlined in Table 3.**
- **BAL setback distances are measured from the edge of existing vegetation at time of feature survey and building construction approvals stages.**
- **Detailed assessment for BAL Construction as described in this document can be undertaken at construction stage by an accredited Bushfire Consultant with approval from the Shire of Chittering.**

A 100m HSZ from external Extreme and Moderate BHL can be achieved as shown on the SP Appendix B and the BAL Mapping Appendix E. The lots will require ongoing maintenance from the developer or will be subject to vegetation clearing by the new owners. If the lots remain unmaintained and continue to revegetate dwellings may require to be built to BAL and AS3959-2009 as per Table 3. This is indicated in the BAL Mapping Appendix E (see inset).

The developer will be responsible for the implementation of a notification on title pursuant to 70A of the *Transfer of Land Act 1893* with regard to the notification on title on lots the lots alerting the future owners of the endorsed Bushfire Management Plan

**Assumptions made in BAL Contour Mapping:**

- Remnant vegetation in internal areas will be maintained as low fuel by the developer.
- A 100m HSZ (setback) will apply to the whole of development and be maintained by the developer prior to sale of lots and until lots are relinquished to new owners.
- The large rural lot to the east will be maintained as rural and grazed pastures.
- The remnant vegetation areas external to the site to the north, south and west adjacent to the subject site will remain "as is".

**6.2.3. Recommendations arising from assessment to this Element**

The recommendations/conclusions from assessment to Element 2: Siting and design; concludes that the subdivision:

- The Subdivision is deemed to be compliant with Element 2 by:
  - The application of a 20m APZ;
  - Clearing/maintenance of 100m HSZ (setback) for BAL Low; and

- If woodland Type B areas regenerate and 100m not achieved then building to BAL/AS3959-2009 as it applies to the dwelling;
- The developer will be responsible for the implementation of a notification on title pursuant to Section 70A of the Transfer of Land Act 1893 for all lots affected by an increase in construction standards consistent with a BAL rating/AS3959-2009 allocation to the lot, and alerting the prospective owner (s) of the lots and successors in title of the Bushfire Management Plan.
- It is recommended that the developer clear all the lots prior to sale to ensure the APZ and setbacks are demonstrated to the purchaser at time of sale. The APZ areas are to be as per the standards in Section 6.2.1 and these areas are regularly maintained by the developer until all land is relinquished to the new lot owner.
- Maintain 100m setback from dwellings and bushfire hazards at all times during staged construction and grasses maintained to <100mm at all times;
- The vegetation clearing required for the street verges, APZ and HSZ areas does allow for the retention of significant trees, these should be clearly marked for the developer prior to clearing operations on the site. Final placement of the dwellings on site (by new lot owners) may require further trees to be removed however this stage of tree removal should only be as per the standards of the APZ Section 6.2.1; and

Individual BAL assessments may be considered on the lots by the new owners when dwelling design/placement is known and can be undertaken at building approval stages with the engagement of an Accredited Level 1 BAL Assessor.

### 6.3. Element 3: Vehicle Access

Intent: To ensure that the vehicular access serving a subdivision/development is available during a bushfire event.

*Acceptable Solutions applied.*

The internal layout of the Subdivision's public roads and private access allows vehicles and other emergency vehicles to move through the subdivision at all times, meeting the Acceptable Solutions. Vehicle access technical standards as outlined in Table 4 are the minimum requirements from Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015a). Refer to Table 4 and Bushfire Management Plan Appendix G.

**Table 4 – Vehicular Access Standards**

Standard	Public Roads	Fire Service Access Ways	Emergency Access Ways
Minimum trafficable	6 metres	4 metres	6 metres
Horizontal clearance	6 metres	6 metres	6 metres
Vertical clearance	4 metres	4 metres	4 metres
Maximum grades	1 in 10	1 in 10	1 in 10
Minimum weight capacity	15 tonnes	15 tonnes	15 tonnes
Maximum crossfall	1 in 33	1 in 33	1 in 33
Curves minimum inner	8.5 metres	8.5 metres	8.5 metres
Cul de sacs	N/A	N/A	N/A
Battle Axes	Not more than 600m	N/A	N/A
Private Driveways	Standard as roads if house >50m from road, passing bays every 200m for 20m.	N/A	N/A
Signage	Not required	Required	Must be signposted
Gates	Not required	Min width 3.6	Min width 3.6
Design and construction	Approved by relevant local government	Approved by relevant local government	Approved by relevant local government
Turn around areas	Every 500 metres, within 50 metres of the house and at water	Every 500 metres, within 50 metres of the house.	Not required

(WAPC, 2015a)

#### 6.3.1. Two Access Ways (A.3.1)

The SP design allows for two access points onto Tea Tree Road and an Emergency Access Way and Fire Service Access onto Brennan Road in the west and to southern firebreaks (in adjacent properties) to the south and meet the Acceptable Solution. Please refer to Bushfire Management Plan Appendix G.

#### 6.3.2. Public roads (A.3.2)

All internal public roads shall be constructed to acceptable standards (Refer to Table 4 – Vehicle Access Standards) and shall be detailed in Civil Engineering Designs. The Subdivision design allows for two way traffic and safe egress from the subdivision via a road network with 30m internal road reserves and meets the Acceptable Solution. Please refer to Bushfire Management Plan Appendix G.

**6.3.3. Cul de Sacs (A3.3)**

Cul-de-sacs will not exceed 200m in length and meet the Acceptable Solution.

**6.3.4. Battle Axes (A3.4)**

Battle Axes shall not exceed 600m, standards for road/street construction are as per Table 4 – Vehicle Access Standards. All Battle Axes proposed meet this requirement and meet the Acceptable Solution.

**6.3.5. Private Driveways (A3.5)**

Constructed driveways are to meet the requirements of Table 4. All driveways will be <50m from road to dwelling and will not require turnaround areas or passing pays, therefore meeting the Acceptable Solution.

**6.3.6. Emergency Access Ways (A3.6)**

Emergency Access Ways (“Fire Access”) will be from the northern side of the subdivision to Tea Tree Road, from Brennan Road to the west and to southern firebreaks (in adjacent properties) to the south. If the subdivision is staged, the Emergency Access Ways will be required to link through to Brennan Road and to Tea Tree Road, this will need to be via a hardened surface as per Table 4 - Vehicular Access Standards. The linking Emergency Access Way to Brennan Road will provide a trafficable surface for emergency access linking Brennan Road and the subdivision internal roads, and meet the Acceptable Solution. Please refer to the Please refer to Bushfire Management Plan Appendix G.

**6.3.7. Fire Service Access (A3.7)**

Fire Service Access (FSA) is proposed from the northern side of the subdivision to Tea Tree Road, from Brennan Road to the west and to southern firebreaks (in adjacent properties) to the south. These FSA’s to enable fire appliance ease of access through the subdivision for fire fighting operations, please refer to the Bushfire Management Plan- Appendix G. The road reserve through the subdivision enables light unit fire appliance and heavy unit (truck appliances) access in an emergency.

The linking Fire Service Access to Brennan Road will provide a trafficable surface for fire appliance access through the POS corridor (Shire land) linking Brennan Road and the subdivision internal roads. Please refer to the Please refer to Bushfire Management Plan Appendix G.

The minimum running surface and standards of construction roads is as per Planning for Bushfire Protection Edition 2 (2010), please refer to Table 4. Fire Service Access routes for this subdivision will:

- Link the road network;
- Be adequately signposted (see following section);
- Allow for two-way traffic (as per Table 4);
- Have a hardened surface (as per Table 4 standards); and
- Have erosion control measures in place such as culverts, stormwater contours/diversions, and native vegetation remediation/stabilisation at gully crossings.

If the subdivision is staged, the Fire Service Access Ways will be required to link through to Brennan Road, this must be via a hardened surface as per Table 4 - Vehicular Access Standards.

**6.3.8. Signage**

“Fire Service Access Ways” are to be sign posted where they adjoin public roads. DFES recommend the following wording for signage as appropriate:

- “Fire Service Access – No Public Access”; and
- “Emergency Access Only”.

An example of clear street signage is shown over the page in Photo13.



Photo 13 – Example of street/road signage clearly indicating emergency access/egress within the subdivision.

### 6.3.9. Gates

The use of gates to restrict public traffic on “Emergency Access Ways” is acceptable provided it is wide enough to accommodate 3.4 Heavy Duty Fire Appliances. Gate standards are to be as follows:

- Minimum width 3.6 metres;
- Approved by the Shire of Chittering;
- Emergency Access must not be locked; and
- Bollards should be installed to restrict vehicle movement around the gates where appropriate.

### 6.3.10. Individual Fire breaks (A3.8)

Internal fire breaks are required by the Shire of Chittering, refer to the current Fire Break Order (annually updated) from the Shire website:

<http://www.chittering.wa.gov.au/chittering-fire-services/fire-breaks-and-important-dates-to-remember.aspx>

As at 2014/15, the Shire of Chittering Firebreak Order states the following firebreaks would apply to this subdivision:

- ***All properties, including Rural Residential with land greater than equal or greater than 2 ha:*** Must clear a fire break of all flammable materials three metres (3) metres wide, with a four (4) metre vertical clearance along the inside of the boundary to the property.
- ***Land Greater than 120 ha:*** Must have a firebreak in such a position which divides the land into areas not exceeding 120 ha. An indication of how this can be achieved on the Rural Lot is shown in the BMP Appendix G.

Individual fire breaks will apply to lots 1-47 (Rural small holdings 5.01 to 5.44ha), with firebreaks for the larger Rural Lot (proposed lot 48) along existing fire breaks as shown in the BMP Appendix G.

The fire breaks are to be maintained to the standard of the Shire of Chittering's Town Planning Scheme No 6, Local Planning Policy No 21. This policy requires all firebreaks to be as stated above (3m wide with a 4m vertical clearance) for 4 wheel drive access. Where a Fire Access (Emergency Access Way) or road adjoins a property, an individual fire break is not required

Internal lot firebreaks should be designed to minimise soil erosion. For instance, firebreaks will generally avoid areas undergoing environmental remediation (Remnant Vegetation areas or Vegetative Corridors) and be installed around these areas. In areas of steep terrain, firebreaks can be created by spraying with chemicals, the path of a firebreak can be meandered to follow contours to reduce the risk of soil erosion from storm water.



#### 6.4. Element 4 Water

Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

##### *Acceptable Solution applied*

Scheme water will not be provided to the subdivision. The Guidelines for Planning in Bushfire Prone Areas recommends rural small holdings to have the provision of a 50, 000L water tank (to a standard approved by the Shire of Chittering) every 25 residences and a hydrant installed. It is therefore required that a 100,000 L capacity should be applied at this subdivision (48 lots) at a central location. These structures will be located on public land and vested with the Shire of Chittering as subdivision clearance occurs.

The hydrant/water tank construction must meet the following standard specifications and have:

- Hardstand and turnaround area suitable for 3.4 Heavy Duty fire appliance;
- Fire water tanks to have level indicators installed;
- Valves and manifolds must be locked by the developer with a Shire Standard lock;
- AS approved fire hydrants;
- Must be capable of delivering 600 litres per minute via Engineers certification;
- Procedures to be put in place by the developer to ensure the tank is maintained at full capacity at all times;
- Be easily accessible with standard fire services hydrant and key; and
- Be identified by standard road and pole markings.

A recommended location for the tank and hardstand area is shown in the Bushfire Management Plan Appendix G. After the developer has completed all maintenance periods, it shall be the responsibility of the Shire of Chittering to maintain this facility.

As scheme water is not to be provided to individual houses, all buildings intended for residential use must include provision for the storage of water in tanks not less than 120,000 litres capacity, of which 10,000L is to be held in reserve for fire fighting purposes. All water tanks intended to reserve 10,000L for fire fighting purposes are required to install a 50mm male camlock fitting to the floor of the tank and the draw point for the residential purposes is to be 10,000L above the floor of the tank.

#### 6.5. Other Bushfire Mitigation Procedures

##### 6.5.1. Landscaping/Streetscaping Areas

Landscaping and Streetscaping areas subject to similar standards that apply to the APZ and the following minimum standards shall apply:

- Trees (crowns) a minimum of 10m apart (no continuous crowns);
- Trees should have no dead material within the plant's crown or on the bole;
- Fuel reduced to <2t/ha; and
- Shrubs should be no higher than 0.5 m.

##### 6.5.2. Staged Development

If the development is staged it should incorporate the following:

- Reduction of bushfire fuels in HSZ and APZ for each stage of construction of the subdivision and during maintenance periods;
- Maintenance of 100m HSZ to APZ standards – note grasses to be slashed and maintained to <100mm at all times.
- Construction of 2-way Emergency Access Way from Tea Tree Road to Brennan Road;
- Installation of Water Tank on public land (minimum of 50,000L/25 residences); and

- Maintenance of fire protection measures in public areas (gates, access, landscaped areas etc) until the developer has relinquished construction/maintenance responsibility of public use areas to the Shire of Chittering.

#### **6.5.3. Evaporative Air Conditioners**

Evaporative air conditioning units can catch fire as a result of embers from bushfire getting into the unit. These embers can then spread quickly through the home causing destruction. It can be difficult for fire-fighters to put out a fire in the roof spaces of homes. Information on Evaporative air conditioners is supplied in Appendix F of this document.

It is also recommended that home owners:

- Ensure that suitable external ember screens are placed on roof top mounted evaporative air conditioners compliant with AS3959-2009 (current and endorsed standards) and that the screens are checked annually.

## 7. Shire of Chittering Fire Protection Plan

The Shire of Chittering has the assistance of the Chittering Fire Services which is made up of six Volunteer Bush Fire Brigades. It has a Chief Bush Fire Control Officer and two Deputies. Five Brigades are fire fighting units and one is an incident support Brigade. Each fire fighting unit has three appliances suited to its area. The Incident Support Brigade supports the Incident Management Team at all fires when required.

Training and induction courses are held regularly and land owners are encouraged to attend these. For more information refer to their website:

<http://www.chitteringfireservices.org.au/>

Local Bush Fire Control Officers are allocated throughout the Shire depending on region, the latest Fire Break Order should be consulted from the Shire's website for contact details:

[www.chittering.wa.gov.au](http://www.chittering.wa.gov.au)

### 7.1. Fire Fighting Facilities

The subject area is in the Upper Chittering Bushfire Brigade District. Response times can vary depending on commitments of volunteers, fire events current at time and priority of the fire services in the south west of Western Australia during summer periods. DFES recommend that homeowners take care to prepare their individual dwellings for fire season and take precautions against fire as per the **“Bushfire Preparedness – Prepare. Act. Survive.”**

It is generally acknowledged that during large wildfire events, local resources may not be able to respond to every dwelling due to strategic deployments of services, priorities within the area or state and/or present commitments of volunteers and resources.

The Chittering Fire Services has 3.4 and 2.4 heavy duty tankers (3000L and 2000L) and light tankers (fast attack 400L capacity). These are typical of Brigade units for fire fighting services within Western Australia.

The Chittering Fire Services' six bush fire brigades provide local fire services and have:

- 4 fire stations;
- Volunteer members;
- A communications and call out system;
- Protective clothing issue to volunteers; and
- DFES approved fire appliances.

### 7.2. Homeowner Protection

It is the responsibility of homeowners to protect their property from fire. DFES have readily available information online which can assist homeowners in their preparedness during fire season (October to May). The DFES website **“Bushfire Preparedness – Prepare. Act. Survive.”** should be accessed by all owners in bushfire prone areas. A hard copy of the A4 book “Prepare. Act. Survive” can be found at local Shire of Chittering Offices or DFES offices, or downloaded off the above web address:

<http://www.dfes.wa.gov.au>

### 7.3. Bushfire Plan

Residents should prepare their own individual fire plans, as they need to make a commitment to develop a bushfire survival plan detailing preparations and actions to take if a bushfire threatens. When developing a bushfire survival plan, the following should be considered:

- If you plan to leave for a safer place - where will you go and how will you get there? Your safer place could be with friends and family, and may not be far away. Know where you will go and never 'wait and see'. Relocating at the last minute can be deadly
- Does your household include elderly relatives, young children, people with disabilities or illness? When, where and how will they be relocated? Who will care for them?
- What will you do with your pets and livestock?
- Can your home be defended? Is it in a location that makes it difficult or dangerous to actively defend? (refer to DFES's Homeowners Bushfire Survival Manual - PDF)
- Will your home provide shelter if you have to or decide to stay?
- Are you capable of defending your home without the support of fire fighters?
- Do you have the skills, knowledge and capacity to check for and put out spot fires for up to ten hours after the fire front has passed?
- Do you have the right equipment and resources to actively defend? (e.g. sufficient independent water supply of at least 20,000 litres and a petrol, diesel or generator powered pump capable of pumping 400 litres per minute)
- Will you cope with the noise and stress of a bushfire if you decide to actively defend? Being in a bushfire may be the most traumatic experience of your life.

(from DFES website, 2013)

By compiling information as outlined above, the individual lot owner can be prepared for their response in a bushfire emergency. Home owners should not rely on emergency personnel to attend their home and thus it is stressed to **prepare an individual bushfire emergency plan** regarding their intentions and property. This Bushfire Management Plan is **not** an individual bushfire emergency plan.

As noted in Section 6.0, building to AS3959-2009 is a standard primarily concerned with improving the ability of buildings in designated bushfire prone areas to better withstand attack from bushfire thus giving a measure of protection to the building occupants (until the fire front passes) as well as to the building itself.

***AS3959-2009 disclaimer:*** *It should be borne in mind that the measures contained within this Standard (AS3959-2009) cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the unpredictable nature and behaviour of fire and extreme weather condition.*

(AS3959, 2009)

Information is also available on the ABC Radio website to guide homeowners in the event of a fire emergency, such information includes:

Planning for an Emergency Bushfire:

- Survival Kit
- Fire Emergency Services
- Before a Bushfire
- During a Bushfire
- After a Bushfire

Refer to the following links for more information on how to prepare a bushfire plan:

<http://www.abc.net.au/news/emergency/?ref=front-page-slider-v2--emergencies>

It is also recommended that homeowners in bushfire prone areas understand the DFES Bushfire Warning System. A brief outline is shown over the page, however further detail should be sought from DFES website ([www.dfes.wa.gov.au](http://www.dfes.wa.gov.au)) in a bushfire emergency.

**Bushfire Warning System**

During a bushfire, emergency services will provide as much information as possible through a variety of channels.

**Community Alerts**

DFES issues Community Alerts for bushfires that threaten lives and property.

The alert level changes to reflect the increasing risk to your life and the decreasing amount of time you have until the fire arrives. DFES issues the following bushfires warnings:

- **Advice**  
A fire has started but there is no immediate danger, this is general information to keep you informed and up to date with developments.
- **Watch and Act**  
A fire is approaching and conditions are changing, you need to leave or prepare to actively defend to protect you and your family.
- **Emergency Warning**  
You are in danger and you need to take immediate action to survive as you will be impacted by fire. An emergency warning may be supported with a siren sound called the Standard Emergency Warning Signal (SEWS).
- **All Clear**  
The danger has passed and the fire is under control, but you need to remain vigilant in case the situation changes. It may still not be safe to return home.

([www.dfes.wa.gov.au](http://www.dfes.wa.gov.au))





## 8. Summary

### 8.1. Overall Fire Threat

Marou Property Development Pty Ltd commissioned Bio Diverse Solutions (Bushfire Consultants) to undertake a fire hazard assessment and prepare a Bushfire Management Plan to guide all future fire management for the proposed subdivision development of Lots 1 and 2 Tea Tree Road, Bindoon. The subdivision proposal is for approximately 47 lots to be created as Rural small holdings zoning (5.01ha to 5.44ha) and large 1 Rural Lot.

The subject site is predominantly cleared paddock areas in the east with some internal remnant vegetation patches with Forest/Woodland vegetation. The majority of the site has have been disturbed from previous land activities (clearing, grazing, agricultural pursuits). In 2016 site reassessment (since 2012) assessed the western paddock areas to be not grazed for some time and regenerating Woodland Type B. Adjacent to the subject site to the south, north and west is Forest Type A, Woodland Type B and Scrub type D in private property areas (as classified by AS3959-2009)

The subdivision has been rated as having an **Extreme - Moderate** Bushfire Hazard Level as defined by WAPC Guidelines, Table 3. The subdivision was assessed against the bushfire protection criteria Acceptable Solutions for Element A1, A2, A3 and A4 found that upon construction, the subdivision will comply with the bushfire protection criteria Acceptable Solutions as per the newly released Guidelines for Planning in Bushfire Prone Areas (WAPC, 2015),

A summary includes:

- Subdivision is deemed to be compliant with “Acceptable Solutions” for Element A1, see Section 6.1;
- Subdivision is deemed compliant with “Acceptable Solutions” for Element A2, see Section 6.2;
- Subdivision is deemed compliant with “Acceptable Solutions” for Vehicles (Element), see Section 6.3; and
- Whole of subdivision compliant with “Acceptable Solutions” for Water (Element), see Section 6.4.

This BMP report provides details of the fire management strategies proposed to be implemented across the site as it is subdivided and developed to ensure adequate protection of life, property and biodiversity assets. To ensure the mitigation measures are implemented responsibilities are outlined in the following sections for the Future Lot Owner, Developer and SoC.

### 8.2. Future Lot Owners Responsibility

***It is recommended the Future Property Owners shall be responsible for the following:***

- To take measures to protect their own assets on their property, home owners should not rely on emergency personnel to attend their home and thus it is stressed to **prepare an individual bushfire emergency plan** regarding their intentions and property. This Bushfire Management Plan is **not** an individual bushfire emergency plan;
- Implement this document, Bushfire Management Plan of 1 and 2 Tea Tree Road Bindoon as it applies to their individual property;
- Ensure that APZ's are maintained to a minimum of 20 metres around all buildings (see Appendix F);
- Ensure that 100m setbacks (HSZ's) are maintained from the Woodland (internal) vegetation (bushfire) risks (see Appendix F);
- Ensure that their property is built to BAL/AS3959-2009 Building Standards if 100m setback cannot be achieved within their property from Woodland Type B;
- Provision for the storage of water in tanks not less than 120,000 litres capacity, of which 10,000L is to be held in reserve for fire fighting purposes;

- Ensuring that suitable external ember screens are placed on roof top mounted evaporative air conditioners compliant with AS3959-2009 (current and endorsed standards) and that the screens are checked annually; and
- Each property owner is to be made aware of:
  - Fire Management Plan,
  - A hard copy of the A4 book “Prepare. Act. Survive”,
  - Fire Control Information supplied by the Shire of Chittering; and
- It is the responsibility of the individual property owner to maintain in good order and condition APZ, HSZ and driveway standards. Future modifications other than requirements as set out in this Bushfire Management Plan can only be done with written agreement from the Shire of Chittering.

### 8.3. Developers Responsibility

Prior to development being given final approval by the Shire of Chittering, the Developer shall be required to carry out works that include the following but in respect to individual stages of development. Subsequent to the issue of final approval, the Developer shall have no further responsibilities to the provision of fire fighting facilities and bushfire management on individual lots that pass from their ownership.

***It is recommended that the Property Developer shall be responsible for the following:***

- Implement this document, Bushfire Management Plan of Lots 1 and 2 Tea Tree Road Bindoon as it applies to their development;
- Comply with standards as outlined by the Shire of Chittering and WAPC conditions of subdivision;
- Ensure that potential property owners are aware of this Bushfire Management Plan;
- Comply with minimum subdivision construction standards as outlined by this Bushfire Management Plan;
- Maintain fire protection measures in public areas (gates, access, landscaped areas etc) until the Developer has relinquished construction/maintenance responsibility of public use areas to the Shire of Chittering;
- Install a 100,000 L capacity water tank for fire fighting purposes located at a central location of the subdivision;
- Construct Access to the following standards as outlined in Table (4).

**Table 4 – Vehicular Access Standards**

Standard	Public Roads	Fire Service Access Ways	Emergency Access Ways
Minimum trafficable	6 metres	4 metres	6 metres
Horizontal clearance	6 metres	6 metres	6 metres
Vertical clearance	4 metres	4 metres	4 metres
Maximum grades	1 in 10	1 in 10	1 in 10
Minimum weight capacity	15 tonnes	15 tonnes	15 tonnes
Maximum crossfall	1 in 33	1 in 33	1 in 33
Curves minimum inner	8.5 metres	8.5 metres	8.5 metres
Cul de sacs	N/A	N/A	N/A
Battle Axes	Not more than 600m	N/A	N/A
Private Driveways	Standard as roads if house >50m from road, passing bays every 200m for 20m.	N/A	N/A
Signage	Not required	Required	Must be signposted
Gates	Not required	Min width 3.6	Min width 3.6
Design and construction	Approved by relevant local government	Approved by relevant local government	Approved by relevant local government

Turn around areas	Every 500 metres, within 50 metres of the house and at water tanks	Every 500 metres, within 50 metres of the house.	Not required
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(WAPC, 2015a)

- Install Signage and Gates of Fire Service Access (if required);
- Install signage for Emergency Access Ways (if required);
- Implement a notification on title under Section 70A of the *Transfer of Land Act 1983* notifying future lot owners about the BMP;
- Provide each prospective owner with:
  - Fire Management Plan,
  - A hard copy of the A4 book “*Prepare. Act. Survive*”; and
  - Fire Control Information supplied by the Shire of Chittering (Yearly advice Brochure updated annually).

#### 8.4. Shire of Chittering Responsibility

At approval and endorsement of this Bushfire Management Plan, the Shire of Chittering has statutory control and responsibility to ensure that aspects of the Plan and community fire safety are maintained.

***It is recommended the Shire of Chittering be responsible for the following:***

- Provide advice on standards and methods to achieve community fire protection to owners/occupiers of land.
- Ensure individual Property Owners maintain in good order and condition Emergency Access/Fire Access Ways building protection zones, hazard reduction zone and driveway standards.
- Maintain district Fire Fighting Facilities.
- Undertake Prescribed Burning (if required) and fuel reduction strategies to ensure a maximum of 8T/ha ground fuels on any internal public remnant vegetation (i.e. Vegetative corridor areas) in accordance with the *Bushfire Act 1954*.
- Ongoing management of any public areas will be the responsibility of the Shire of Chittering after the Developer has relinquished construction/maintenance responsibility.
- Maintain condition and working order of district water supplies and equipment for fire fighting purposes.

## 9. Checklist for compliance to and Guidelines for Planning in bushfire Prone Areas and State Planning Policy 3.7

### 9.1. Checklist to Compliance to Guidelines for Planning in Bushfire Prone Areas

The following checklist has been developed by Bio Diverse Solutions in response to the bushfire protection criteria as outlined in the recently released Guidelines for Planning in Bushfire prone Areas.

Checklist for proposal compliance and justification to Guidelines for Planning in Bushfire Prone Areas (2015) )			
BDS Project Name	BMP Lot 1 and 2 Tea Tree Road Chittering		
BDS Job Number	WHEL014		
Date	13/6/2016	WAPC#	n/a
Client name	Marou Property Development Pty Ltd	Condition #	n/a
Bushfire Prone Area	Yes	Mapping	Yes See App A
Planning proposal	Rural Subdivision	Lots created	48
1. Bushfire Protection Criteria Acceptable Solutions as defined by Guidelines for Planning for Bushfire Prone Areas (WAPC 2015).			
Element	Compliant to Acceptable Solution– Yes/No	Justification	
Element 1 – Location	Yes	Site will be classified as Extreme and Moderate bushfire hazard upon completion. Buildings built to BAL-Low and AS3959-2009, no higher building than BAL 12.5 required on (large sized lots) rural small holding lots. <b>Subdivision deemed to meet Acceptable Solution.</b>	
Element 2 - Siting and design of development	Yes Stages Stag	A2.1: APZ can be achieved within the lot boundaries due to large lots created <b>Subdivision deemed to meet Acceptable Solution</b> A2.2 Setbacks can be achieved and building no higher than BAL 12.5. Setbacks to BAL located within the lot boundary. Building to BAL –Low can occur on all lots. <b>Subdivision deemed to meet Acceptable Solution</b>	
Element 3 - Vehicular access	Yes	A3.1: Two access routes south to north and to west to Brennan Road A3.2 Public roads to meet minimum grades A3.3 Cul-de-sacs meet minimum grades A3.4 Battle axes meet minimum grades A3.5 Private Driveways meet minimum grades A3.6 EAW proposed and can meet minimum requirements. A3.7 FSA along public road network and EAW's. A3.8 Firebreaks/low fuel areas compliant to SoC requirements <b>Meets Acceptable Solution.</b>	
Element 4 – Water	Yes	Reticulated scheme water proposed. <b>Meets Acceptable Solution.</b>	
Bushfire Hazard Assessment required	Yes	See Section 5 and Appendix D of BMP.	
BAL Contour required	Yes	See Section 6 and Appendix E of BMP.	
BMP required	Yes	This BMP document assessed the proposal in detail to the bushfire protection criteria.	

**9.2. Checklist to Compliance to SPP3.7 Policy Measures**

The following checklist has been developed by Bio Diverse Solutions in response to the Policy measures as outlined in the recently released State Planning Policy 3.7

<b>2. Policy measures SPP3.7</b>		
<b>Policy Measure</b>	<b>Applicable – Yes/No</b>	<b>Justification</b>
<b>6.1 - Higher order strategic planning documents in bushfire prone areas</b>	No	Not applicable – not a high order planning document
<b>6.2 – Strategic planning proposals, subdivision and development applications:</b>	Yes	a) Subdivision proposal within a designated bushfire prone area, BAL and AS3959-2009 to apply where <100m of bushfire prone vegetation. BHL Extreme and Moderate adjacent to site, internal Moderate and Low BHL at completion of construction. No higher BAL construction than BAL Low or BAL 12.5 required. Large lots proposed.
<b>6.3 - Information to accompany strategic planning proposals:</b>	Yes	a) Results of BHL documented in BMP and prepared by an accredited Level 1 BAL Assessor and Experienced Level 2/3 Bushfire Planning Practitioner. b) BAL Contour Map documented in BMP and prepared by an accredited Level 1 BAL Assessor and Experienced Level 2/3 Bushfire Planning Practitioner. c) Assessment to guidelines indicated can meet all Elements assessed against Acceptable Solutions updated BMP would be required to document any changes for future planning stages.
<b>6.4 - Information to accompany subdivision application</b>	Yes	a) BAL Contour map provided and prepared by an Accredited Level 1 BAL Assessor and Experienced Level 2/3 Bushfire Planning Practitioner b) Bushfire hazard issues identified arising from BAL Contour Map buildings. Subdivision can be built to no higher allocation than BAL 12.5. c) Assessment to guidelines indicated can meet all Elements assessed against Acceptable Solutions. Update of BMP required to document any changes for future stages
<b>6.5 Information to accompany Development applications</b>	No	Not applicable – not a Development Application
<b>6.6 Vulnerable or high-risk land uses</b>	No	Not applicable – not a Vulnerable or high-risk land use.
<b>6.7 Strategic Planning proposals, subdivision or development applications in areas where an extreme BHL and/or BAL-40 or BAL –FZ applies</b>	No	No.
<b>6.8 Advice of State/relevant authorities for emergency services sought</b>	No	
<b>6.9 Advice of State/relevant agencies/authorities</b>	No	Flora and Fauna survey completed in 2012, vegetation cleared and degraded condition.



for environmental protection to be sought		
6.10 Bushfire conditions may be imposed	Yes	Building to BAL if dwelling situated within 100m of Bushfire Prone Vegetation.
6.11 Precautionary principle	No	Not applied

### 9.3. Recommendations/conclusions based on above checklists

A summary of the recommendations within this report is supplied below. This also forms the “upfront” and “ongoing” tasks which need to be completed for this project.

- Implementation of responsibilities of the developer (Section 8.3) will be undertaken by the developer/client via formal endorsement/release of this BMP plan. Agreeance to the responsibilities as outlined in Section 8.3 of this BMP is accepted by the developer/client by the provision of this document to approving agencies.
- Implementation of the responsibilities of the developer (Section 8.3) will not occur by the developer until a formal written approval/endorsement is given from the approving agency regarding the BMP.
- In the event the property passes ownership to a subsequent developer/owner the implementation of the endorsed/approved BMP (Section 8.3) should be conditioned by WAPC as a matter of the WAPC subdivision conditional process.
- The developer will be responsible for the implementation of a notification on title pursuant to Section 70A of the Transfer of Land Act 1893 for all lots affected by an increase in construction standards consistent with a BAL rating/AS3959-2009 allocation to the lot, and alerting owner (s) of the lots and successors in title of the Bushfire Management Plan.
- The BAL Contour Plan (Appendix E) is prepared at a point in time and it is recognised by Bio Diverse Solutions that the landscape may change post subdivision construction and over time. It is therefore recommended that a review of the BAL Contour Plan is undertaken post construction stages and prior to subdivision clearance stages; and/or the map is over 3 years from date of production and, if required, an updated BAL Contour Plan is provided to the CoA prior to conditional clearance of the bushfire management issues.
- Individual BAL assessments may be required on the lots by the new owners and can be considered at building approval stages with the engagement of an Accredited Level 1 BAL assessor.

Based on the above recommendations, Bio Diverse Solutions recommend the proposed subdivision can occur as documented in this BMP Plan. The BMP plan does not give recommendations in regards to detailed environmental (flora, fauna, soil etc) plans, town planning, engineering – civil, structural or building and feature survey requirements, these considerations would need to be addressed through other suitably qualified practitioners.

## 10. References

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Department of Planning Western Australia *Planning and Development (Bushfire Risk Management) Regulations 2014 and Development (Bushfire Risk Management) Regulations 2014* accessed from website February 2015 from:

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<https://maps.slip.wa.gov.au/landgate/bushfireprone/>

**Appendices**

**Appendix A – Location**

**Appendix B – Structure Plan**

**Appendix C - Vegetation Classes Map**

**Appendix D –Bushfire Hazard Level Mapping**

**Appendix E – BAL Contour Plan**

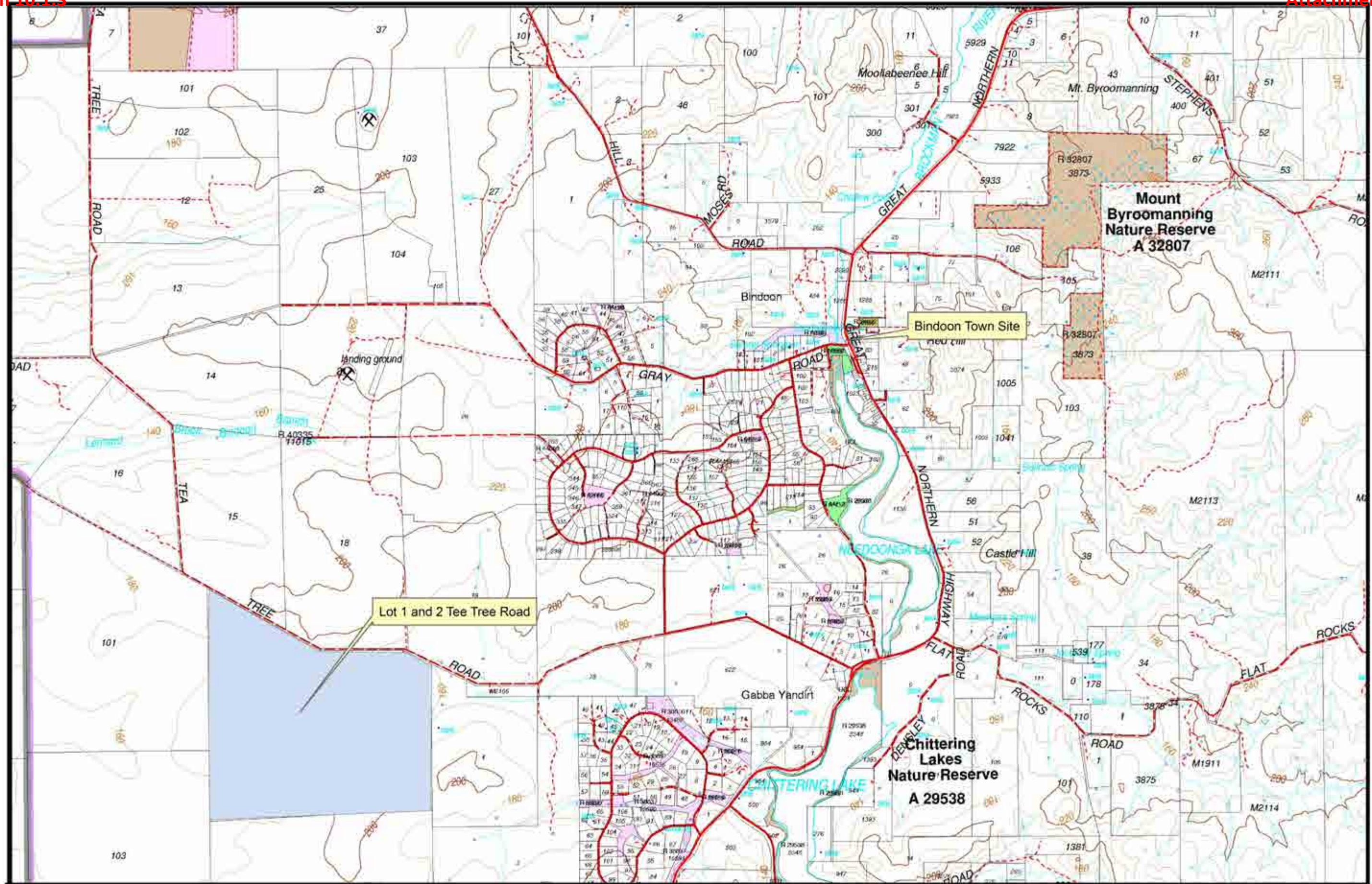
**Appendix F – DFES Information for the homeowner**

**Appendix G – Bushfire Management Plan**

Appendix A

Location Mapping





<b>Legend</b> Subject area	Scale 1:40000 @ A3		 0 390 780 1,560 2,340 3,120 Meters	 <b>BIO DIVERSE SOLUTIONS</b> 65 Peppermint Drive Albany, WA 6330 Australia Tel: 08 9841 3936 Fax: 08 9841 3936 Mob: 0447 555 516	<b>CLIENT</b> Lot 1 and 2 Tee Tree Road Bindoon WA			
	<b>Location Mapping</b>							
	<b>STATUS</b> FINAL	<b>FILE</b> WHEL014			<b>DATE</b> 13/06/2016			



**OBRM BUSHFIRE PRONE MAPPING 7/12/15 & 20/5/2016**



<https://maps.slip.wa.gov.au/landgate/bushfireprone/>

(SLIP 2016)

Appendix B

Structure Plan

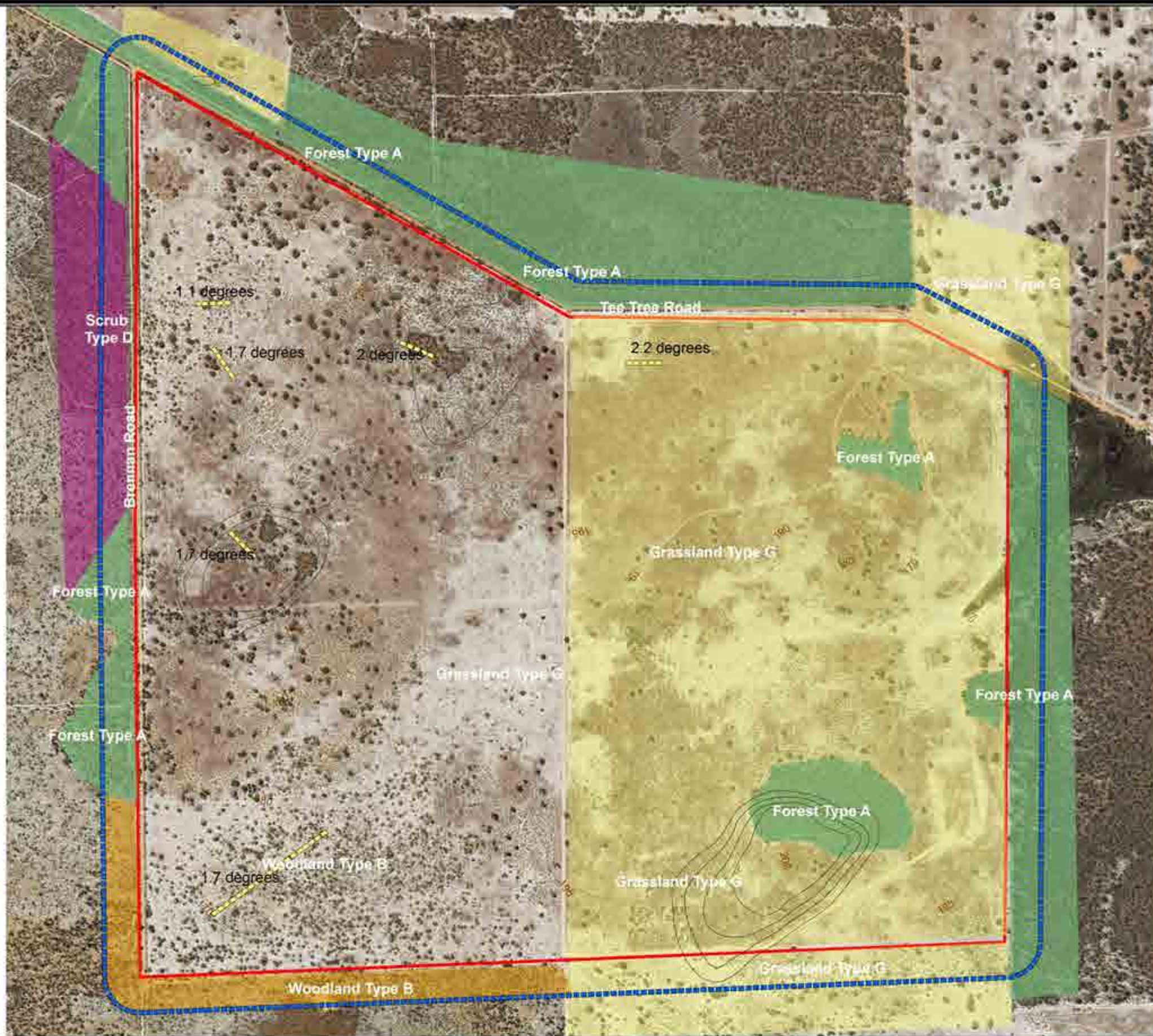




Appendix C

Vegetation Classes Map





## Legend

- 100m Assessment Boundary
- Slope degrees
- Scrub Type D
- Forest Type A
- Woodland Type B
- Grassland Type G
- Subject area

00 0.1 0.2 0.3 0.4 0.5  
Kilometers

Scale  
1:12000 @ A3



**BIO  
DIVERSE  
SOLUTIONS**

55 Peppermint Drive  
Albany, WA 6330  
Australia  
Tel: 08 9841 3936  
Fax: 08 9841 3936  
Mob: 0447 555 516

CLIENT Lot 1 and 2 Tee Tree Road  
Bindoon WA

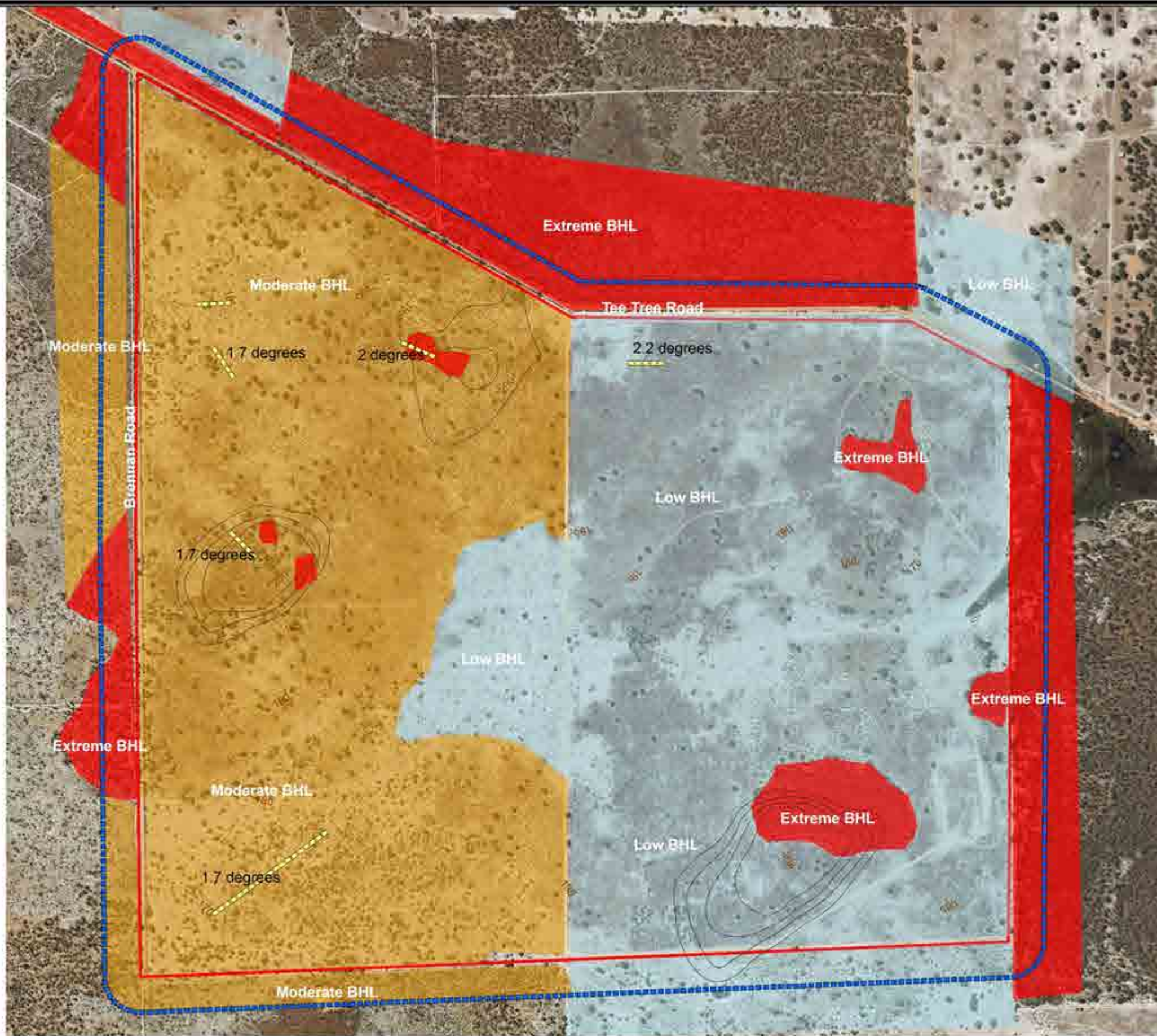
## Vegetation Classes Map

STATUS	FILE	DATE
FINAL	WHEL014	13/06/2016



Appendix D

Bushfire Hazard Level (BHL) Mapping



# Legend

- 100m Assessment Boundary
- Slope degrees
- Extreme BHL
- Moderate BHL
- Low BHL
- Subject area

Scale 1:12000 @ A3  
0 0.1 0.2 0.4 0.6 0.8 1 Kilometers



**BIO DIVERSE SOLUTIONS**

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Australia  
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Bindoon WA

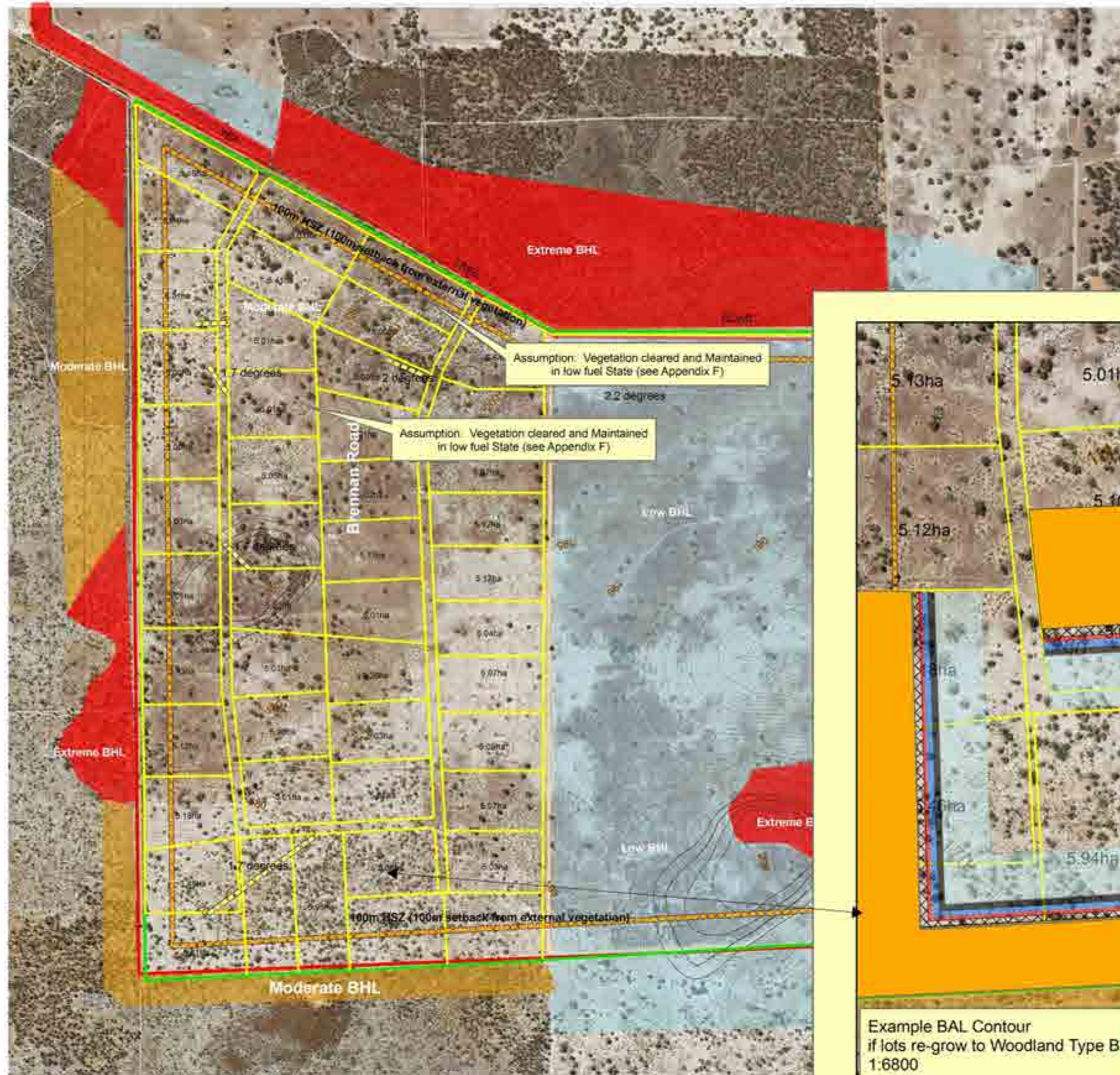
## Bushfire Hazard Level

STATUS	FILE	DATE
FINAL	WHEL014	13/04/2015

Appendix E

BAL Contour Plan





Example BAL Contour  
if lots re-grow to Woodland Type B  
1:6800

Legend

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

Legend

- 100 HSZ
- Slope degrees
- Extreme BHL
- Moderate BHL
- Low BHL
- Subject area

0 0.1 0.2 0.4 0.6 0.8 1 Kilometers

Scale  
1:12000 @ A3



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CLIENT Lot 1 and 2 Tee Tree Road  
Bindoon WA

BAL Contour Plan

STATUS	FILE	DATE
FINAL	WHEL014	13/04/2015



Appendix F

DFES information for the homeowner



**BUSHFIRE**

**FACTSHEET**  
02

# Building Protection Zones

**ARE YOU  
BUSHFIRE  
READY?**

aresynruradty.wa.gov.au

## PREPARING YOUR HOME AND PROPERTY FOR A BUSHFIRE

You should prepare your home to survive the passage of a bushfire, even if your plan is to leave. A well prepared and constructed house is more likely to survive a bushfire than an unprepared one. Firefighters cannot defend every property and are unlikely to defend a poorly prepared property; remember their lives are at risk too.



**A Building Protection Zone (BPZ)** is an area extending for **20 metres** around a building where there is reduced flammable material. This means there is less material that can catch on fire, improving the chances that your home may survive a bushfire.

## DID YOU KNOW?

**Firebreaks have a number of purposes.** They are used to stop the spread of a bushfire and are also used by firefighters to gain access around all areas of your property and as a place from which to fight a fire.

Remember that firebreaks must be wide enough and have enough vertical clearance to let a firefighting truck pass.

Maintain your firebreaks to ensure your property can be defended during a fire.

- ☐ **Create a minimum 20 metre building protection zone** around your home and other buildings. This area needs to be cleared of all rubbish, long dry grass, bark and material that may catch fire.
- ☐ **Prune lower branches** (up to two metres off the ground) to stop a ground fire spreading into the canopy of the trees.
- ☐ **Clear vegetation** around your property to create a fire break, particularly the overhanging branches. Make sure you meet your local government's firebreak requirements.
- ☐ **Cut grass** to less than 10 centimetres high and prune shrubs to remove dead material.

For more information visit [www.dfes.wa.gov.au](http://www.dfes.wa.gov.au) or contact **DFES Community Engagement** 9395 9816



Government of Western Australia  
Department of Fire & Emergency Services



DFES  
Department of Fire & Emergency Services

## PREPARE ACT SURVIVE



## Information Note

September 2014

# What is a Building Protection Zone?

### Key Points

Fuel loads influence bushfire intensity.

The lower the fire's intensity the less impact on the building.

Creating a minimum 20 metre reduced fuel load area (building protection zone) will increase the protection of the building.

Ember protection is important to protect the building.

Constructing or retrofitting your home to meet the Australian Standard 3959 — *Construction of buildings in bushfire-prone areas* and addressing bushfire risks in accordance with the *Planning for Bushfire Risk Management Guidelines* will ensure your house has the best bushfire protection.

### Definitions

**Scrub crown** is the green, leaf material on the scrub plants.

**Surface fire** is the fire burning the leaves and scrub on the top of the ground.

**Mineral earth firebreak** is a firebreak without vegetation.

**Ember attack** is where the bark and fine vegetation material is set alight, becomes airborne and is carried forward of the fire.

### Managing and reducing fuel loads

**Managing and reducing fuel loads for a minimum of 20 metres around a building will increase its likely survival from a bushfire.**

Known as the Building Protection Zone (BPZ), the aim of this area is to ensure that there will be no direct flame contact on the building from a bushfire. By utilising fuel management options it will also be possible to reduce the potential radiant heat impact on the building.



Above: Well prepared Building Protection Zone with reduced fuel.

If there is little or nothing to burn then the fire's impact will be reduced. This can be achieved by:

- Maintaining a minimum 2 metre gap between trees and the building. Make sure that no trees overhang the house.
- Ensuring tree crowns are a minimum of 10 metres apart.
- Ensuring there is a gap between shrubs and buildings of three times their mature height.
- Ensuring shrubs aren't planted in clumps.
- Keeping the grass short and prune the scrub so that it is not dense, nor does it have fine, dead aerated material in the crown of the scrub.
- Raking up leaf litter and twigs under trees and remove trailing bark.
- Pruning lower branches (up to 2 metres off the ground) to stop a surface fire spreading to the canopy of the trees.
- Creating a mineral earth firebreak.
- Having your paths adjacent to the building and have your driveway placed so that it maximises the protection to the house.

Version 8, September 2014

For more information contact the Environmental Protection Branch on 9395 9300 • email: [environment@dfes.wa.gov.au](mailto:environment@dfes.wa.gov.au) or visit [www.dfes.wa.gov.au](http://www.dfes.wa.gov.au)





- Storing firewood away from the building.
- Ensuring fences and sheds are constructed using non-combustible materials, but preferably not located in the BPZ.
- Keeping your gutters free of leaves and other combustible material.
- Ensuring gas bottles are secured and positioned so that they will vent away from the building, if subject to flame contact or radiant heat.

### Ember attack

In a bushfire, most homes that are damaged or destroyed are from ember attack. These burning embers get into gaps within the building, such as into the roof cavity, and ignite the material within the cavity. It can take a number of hours before the burning becomes apparent and by that time the building may not be able to be saved.



Above: Reduced fuel in the Building Protection Zone contributed to the survival of this home in a bushfire.

Right: Home destroyed by bushfire, note the tree branches overhanging the house.

It is recommended that all homes that may be affected by embers be made ember proof. If a bushfire occurs in the general area, then the roof cavity and other crevices should be inspected to ensure that no embers have caused a fire. Be aware that there are electricity cables in the roof area and the introduction of water will be a safety issue.



For more information contact the Environmental Protection Branch on 9395 9300, email: [environment@dfes.wa.gov.au](mailto:environment@dfes.wa.gov.au) or visit [www.dfes.wa.gov.au](http://www.dfes.wa.gov.au)

## BUSHFIRE

## Evaporative Air Conditioners

FACTSHEET

08

ARE YOU  
BUSHFIRE  
READY?

areyouready.wa.gov.au

## DID YOU KNOW?

Your evaporative air conditioning unit can catch fire as a result of embers from bushfires, or even small back yard fires, getting into your unit. If a fire starts in your air conditioner, it can spread quickly throughout your home.

If there is smoke nearby  
you should:

- ☐ Run the air conditioner to wet the filter pads
- ☐ When smoke is over your home or ash starts to drop around your house, switch the air conditioner off
- ☐ If possible, continue to run water over the filter with the fan turned off
- ☐ If the water can't be run on its own, or if there is a power failure at the time, wet the air conditioner filter pads using a garden hose
- ☐ Keep checking your air conditioner and the area around your home for spot fires from embers until the danger has passed

It can be difficult for firefighters to put out a fire caused by embers getting into the roof space of your home. Knowing what to do to keep your evaporative air conditioner safe from fire can help save your property.

For more information on evaporative air conditioners see DFES Information Note on Ember Protection Screens.

## DID YOU KNOW?

If you live within 500 metres of bushland and have a roof mounted evaporative air conditioning unit, your home may be at increased risk of ember attack.



**If your home does  
catch fire, leave your  
home and call 000  
immediately**

## WHAT IS EMBER ATTACK?

Embers are pieces of burning bark, leaves or twigs that are carried by the wind around the main fire creating spot fires.

For more information visit [www.dfes.wa.gov.au](http://www.dfes.wa.gov.au) or contact DFES Community Engagement 9395 9816



Government of Western Australia  
Department of Fire & Emergency Services

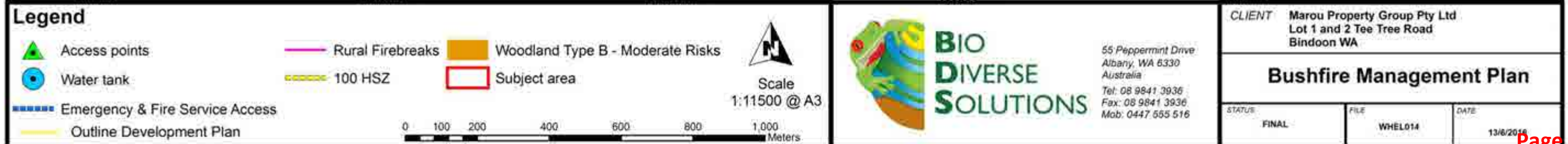


PREPARE ACT SURVIVE

Appendix G

Bushfire Management Plan







**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## APPENDIX 5 – LAND CAPABILITY FOR ON-SITE EFFLUENT DISPOSAL

**LOTS 1 AND 2 TEA TREE ROAD, BINDOON**

**LAND CAPABILITY FOR  
ON-SITE EFFLUENT DISPOSAL**

**Prepared for**

**Marou Property Developments Pty Ltd**

c/- Whelans

PO Box 99

MT HAWTHORN WA 6915

Draft Report No. J15017

14 October 2015

**BAYLEY ENVIRONMENTAL SERVICES**

30 Thomas Street

**SOUTH FREMANTLE WA 6162**

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B	Water Analysis Results

## **1.0 INTRODUCTION**

Marou Property Developments Pty Ltd plans to subdivide Lots 1 and 2 Tea Tree Rd, Bindoon (the subject land) into 47 five hectare rural smallholding lots and one balance lot of about 186ha. All lots will employ on-site effluent disposal.

Bayley Environmental Services was commissioned in August 2015 to investigate and report on the capability of the subject land to accommodate on-site effluent disposal. the investigations took place in September-October 2015 and included:

- drilling of nine boreholes across the site, focussing on areas of likely groundwater accumulation and/or drainage;
- installation of bores in three boreholes where groundwater was encountered;
- collection of soil samples from the boreholes and analysis for phosphorus retention index (PRI);
- measurement of depth to groundwater in the bores;
- collection and analysis of water samples from the bores;
- review of environmental information including aerial photography, topography, geology, soils, groundwater and previous reporting on the site by Landform Research (2000).

The conclusion from these investigations is that the subject land has a very high capability for on-site effluent disposal by conventional or alternative systems. Specifically:

- The site has low slopes (less than 10%; mostly less than 5%).
- The soils are deep, sandy and permeable with no confining layers such as clay or rock in the shallow profile.
- The water table is more than 6m deep over all but the eastern extremity of the site.
- All proposed lots have a large separation (>500m) to surface water bodies.

Details of the investigations and findings are presented below.



## 2.0 ENVIRONMENTAL CHARACTERISTICS

### 2.1 Topography and Landforms

The subject land is located on an elevated, undulating plateau at elevations for 160m AHD to 208m AHD. From high ground in the centre, west and south-east, the land falls away in broad valleys to the north-west, south-west, north-east and east. Figure 1 shows topographic contours of the site. Figure 2 shows an oblique aerial view.

The slope varies from about 10% in the steepest eastern valley to less than 1% in the centre of the site, with the slope averaging about 4% over the site.

### 2.2 Geology and Soils

#### 2.2.1 Overview

The subject land is located on the Dandaragan Plateau just west of the Darling Fault. The soils are predominantly sandy, with deep yellow and yellow-brown sands, earthy sands and gravelly sands on the slopes and leached grey sands in the valleys. Ferricrete cemented sandstone rock occurs on a few ridge tops.

Landform Research Pty Ltd (2000) described and mapped the soils in detail based on 47 shallow test pits across the subject site. Figure 1 shows the Landform Research soil mapping.

Drilling of nine boreholes across the site by Bayley Environmental Services in 2015 (Figure 1) found generally sandy soils with grey and grey-brown sands to about 1m over yellow and yellow-brown sands and earthy and clayey sands. Appendix A presents the soil logs from the drilling.

#### 2.2.2 Soil Permeability

The sandy soils have a high permeability, with no evidence of clay being found in the boreholes at less than 3m deep.

Landorm Research (2000) mapped ferricrete on some ridge tops and beneath the sandy soils of the valley slopes, but drilling in these areas in 2015 found no evidence of this beyond minor gravel to at least 6m depth.

#### 2.2.3 Phosphorus Retention Index

Soil samples from 1m depth in the boreholes were analysed for phosphorus retention index (PRI). This depth was generally at about the interface between the grey and grey-

brown surface soils and the yellow earthy subsoils, so the results would underestimate the PRI of the subsoils.

The analysis found low PRI across the site. Table 2.1 summarises the PRI results.

**Table 2.1 Phosphorus Retention Index**

Site Figure 1)	BB1	BB2	BB3	BB4	BB5	BB6	BB7	BB8	BB9
PRI @ 1m	0.5	0.6	0.9	0.3	0.3	0.4	0.5	1.4	0.9

## 2.3 Hydrology

### 2.3.1 Surface Drainage

The subject land lies across a drainage divide between Chandala Brook to the west and the Brockman River to the east, both tributaries of the Swan-Avon system.

Given the deep sandy soils and low slopes of the subject land, there is no defined surface drainage. Surface runoff would be limited to short-lived overland flow during and immediately after extreme rainfall.

Surface flow begins at the eastern boundary of the site, where a small drainage line rises and flows into the Brockman River via Lake Chittering. A soak dam has been constructed just inside the eastern boundary at the beginning of this drainage line.

### 2.3.2 Groundwater

Groundwater is present beneath the site and is expected to flow east and west from the central high ground in line with the prevailing topography. The groundwater intersects the ground surface in the soak at the eastern boundary and in another soak just outside the boundary at the north-east corner.

Over most of the site, the groundwater is at least 6m below the surface. The depth to groundwater is likely to exceed 30m in the higher parts of the site. Table 2.2 shows the depths to groundwater found by drilling and bore measurements in September 2015.

**Table 2.2 Depth to Groundwater**

Site Figure 1)	BB1	BB2	BB3	BB4	BB5	BB6	BB7	BB8	BB9
Depth to Water (mbgl)	>9	>6	>9	>6	1.16	4.10	>6	>6	1.09

### 2.3.3 Water Quality

Analysis of samples collected from the bores and the soak dam in September 2015 shows that the groundwater quality is high, with low salinity, near-neutral pH and low nutrient levels. Appendix B presents the full results of the water analysis.

## 3.0 LAND CAPABILITY ASSESSMENT

Land capability for on-site effluent disposal depends on a number of factors, some of which are mandated by the Health Department's *Country Sewerage Policy* (2002):

- slope (maximum 20%);
- depth to groundwater (minimum 0.5m);
- soil profile (minimum 1.2m of free-draining soil free of rocks, clay and other confining layers);
- soil permeability (sufficient to permit infiltration but not so great as to permit unrestricted flow);
- soil purification ability (able to effectively remove bacteria, nutrients etc. from effluent by soil filtration);
- separation from surface water bodies (30-100m, depending on soil and system type);
- flooding risk (not susceptible to inundation more than once every ten years); and
- development density (maximum 10 lots equivalent per hectare in unsewered towns).

The subject land meets all of these criteria, as detailed below.

### *Slope*

The slope of the subject land is all less than 10% and mostly less than 5%.

### *Groundwater Depth*

The shallowest groundwater was measured at 1.09m near the eastern boundary. Over most of the site the depth to groundwater is greater than 6m.

### *Soil Profile*

The site has deep sandy soils with no significant confining layers. Although Landform Research (2000) found ferricrete gravel and rock on ridge tops, there are no building envelopes proposed in these areas and in any case the ferricrete (cemented sandstone) would likely be permeable and/or readily excavated.

### *Soil Permeability*

The sandy soils would be readily permeable but not excessively so.

*Soil Purification Ability*

The deep earthy sand subsoils would ensure very effective removal of contaminants before the effluent reaches the water table. Although the PRI at 1m depth is low, the change in soil colour at most sites below this depth indicates that the subsoil PRI would be higher. Added to this, the large depth to groundwater will ensure effective uptake of phosphorus from effluent.

The exception to this is the eastern side of the subject land, where leached white sands and shallower groundwater (less than 2m) would require alternative treatment systems. However, the development plan shows no building envelopes within this zone.

*Separation from Water Bodies*

The nearest surface water bodies are the soak dam near the eastern boundary and the wetland just outside the north-eastern corner of the site. The nearest building envelopes are more than 500m from these water bodies.

*Flooding/Inundation Risk*

There is no risk of inundation anywhere on the subject land.

*Development Density*

The Country Sewerage Policy limits unsewered development in Bindoon to ten residences (or equivalent) per hectare. The total of 48 lots proposed on the subject land is equivalent to less than one residence per hectare.

**4.0 CONCLUSION**

This investigation has concluded that the subject land has very high capability to support on-site effluent disposal using conventional or alternative treatment systems for the development as proposed.

-

## **Figures**



# Item 10.1.3

## Attachment 1

- Property boundary
- Subdivision boundary
- Topo contour (1m AHD)
- Soil boundary (Landform Research, 2000)
- Drainage divide
- Conservation Category
- Wetland (DPAW)
- 50m wetland buffer
- Borehole – dry
- Monitoring bore



Figure 1

## ENVIRONMENTAL FEATURES





0 200 metres  
Vertical exaggeration: 3x

Figure 2  
OBLIQUE AERIAL VIEW

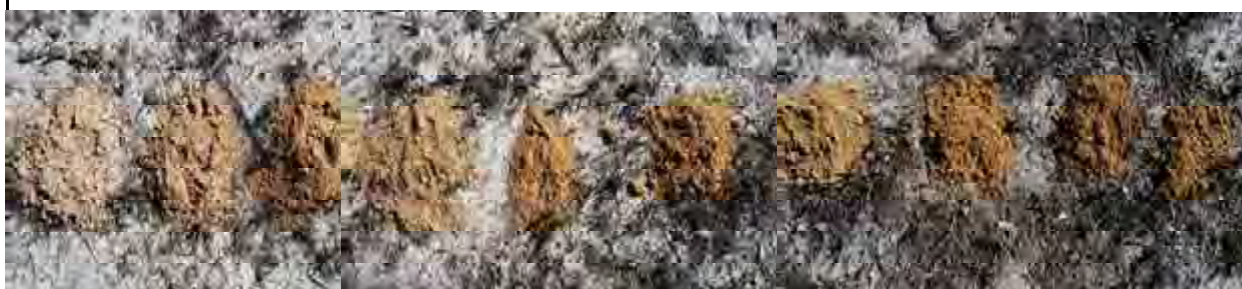
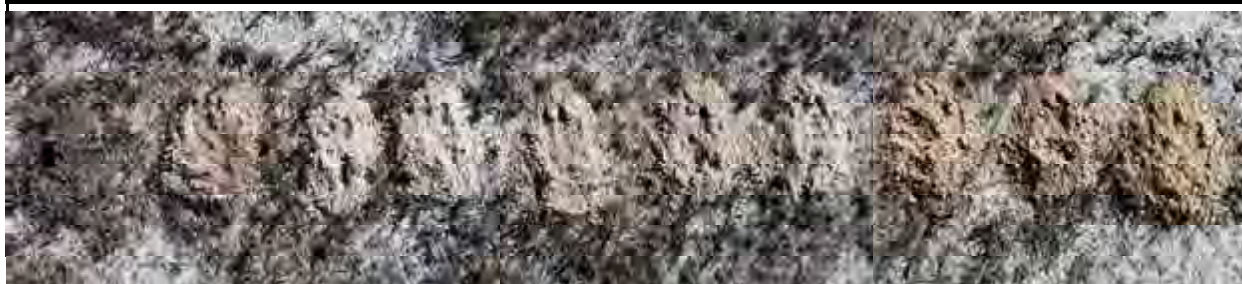
# **Appendix A**

## **Soil Logs**

# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB1
EASTING:	406974
NORTHING:	6522556
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	9m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	>9m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Dark grey sand		
1 - 3.5	Pale brown-grey sand, paler and finer with depth		
4 - 4.5	Grey-brown sand with occasional gravel to 10mm		
5	Yellow-brown sand with occasional gravel to 10mm		
5.5	Brown-yellow sand with occasional gravel to 10mm		
6 - 7	Brown-yellow earthy sand with occasional gravel to 15mm		
7.5 - 9	Brown-yellow coarse sandy clay with occasional white clay lumps		





# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB2
EASTING:	407441
NORTHING:	6522958
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	6m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	>6m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Grey sand		
1	Pale grey sand		
1.5	Very pale grey sand		
2 - 2.5	Cream sand		
3 - 3.5	Pale yellow-brown sand with occasional gravel to 15mm		
4	Yellow-brown sand with occasional gravel to 15mm		
4.5	Coarse yellow earthy sand with common gravel to 15mm		
5 - 6	Orange coarse clayey gritty sand		





# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB3
EASTING:	406954
NORTHING:	6524278
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	9m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	>9m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Brown-grey sand		
1	Yellow-brown sand		
1.5 - 2	Yellow sand		
2.5 - 3	Yellow sand with occasional gravel to 10mm		
3.5	Yellow sand with occasional gravel to 20mm		
4	Brown-yellow coarse sand with gravel to 25mm		
4.5 - 6	Orange-brown-yellow earthy sand with gravel to 25mm		
6.5 - 7	Red gritty clayey sand		
7.5 - 9	Red gritty clayey sand, more clay		



# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB4
EASTING:	407365
NORTHING:	6524494
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	6m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	>6m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Grey sand		
1	Very pale brown-grey sand, coarse		
1.5 - 2	Very pale grey sand, finer		
2.5 - 3	Pale yellow-brown sand with occasional gravel to 15mm		
3.5 - 5.5	Yellow-brown gravelly sand wo 20mm		
6	Red-brown earthy sand with gravel to 20mm		



## SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB5
EASTING:	409178
NORTHING:	6523433
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	4.5m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	~1.25m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 2	Brown-grey sand, medium coarse, wet from ~1.25m		
2.5 - 3	Grey-brown sand, medium coarse		
3.5 - 4.5	Pale grey sand, medium coarse	Cased to 4.5m	





# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB6
EASTING:	408798
NORTHING:	6523380
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	6m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	4.5m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Grey sand		
1 - 1.5	Pale brown-grey sand		
2	Yellow sand with occasional gravel to 10mm		
2.5	Brown sand with gravel to 10mm		
3 - 5	Yellow earthy sand, wet from ~4.5m		
5.5	Pale yellow earthy sand		
6	Grey sandy clay	Cased to 6m	



# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB7
EASTING:	408836
NORTHING:	6524241
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	6m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	>6m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Grey sand		
1 - 1.5	Yellow-brown sand		
2 - 6	Orange earthy sand, moist		





# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB8
EASTING:	408258
NORTHING:	6523954
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	6m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	>6m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Yellow-brown sand		
1 - 1.5	Yellow sand		
2 - 6	Orange earthy sand, moist		



# SOIL PROFILE LOG

PROJECT NUMBER:	J15017
SITE ID:	BB9
EASTING:	409306
NORTHING:	6524134
METHOD:	Auger rig
TOTAL DEPTH (mbgl):	4.5m
REFUSAL (Y/N):	N
DATE:	7/09/2015
DEPTH TO WATER (mbgl)	~1.5m

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION	SAMPLE ID	INTERVAL (m)
0 - 0.5	Grey sand		
1 - 2	Pale grey sand, medium coarse, wet from ~1.5m		
2.5	Brown sand		
3 - 4	Grey-brown sand		
4.5	Dark brown earthy sand	Cased to 4.5m	



# **Appendix B**

## **Water Analysis Results**

**LABORATORY REPORT**

Bayley Environmental Services

ARL Job No: 15-7050

Revision: 00

Date: 9 October 2015

Metals in Water Sample No: Sample Description:	LOR	UNITS	15-7050-1 BB5	15-7050-2 BB6	15-7050-3 BB9	15-7050-4 Dam
Aluminium - Dissolved	0.1	mg/L	<0.1	<0.1	<0.1	<0.1
Arsenic III	0.001	mg/L	<0.001	<0.001	<0.001	<0.001
Arsenic V	0.001	mg/L	<0.001	<0.001	<0.001	<0.001
Calcium - Dissolved	0.1	mg/L	1.3	1.1	1.7	1.4
Cadmium - Dissolved	0.002	mg/L	<0.002	<0.002	<0.002	<0.002
Chromium III	0.01	mg/L	<0.01	<0.01	<0.01	<0.01
Copper - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01
Iron - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01
Mercury - Dissolved	0.0002	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Potassium - Dissolved	0.1	mg/L	1.2	0.8	1.2	2.6
Magnesium - Dissolved	0.1	mg/L	2.6	3.1	6.5	6.4
Sodium - Dissolved	0.1	mg/L	35	31	89	78
Nickel - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01
Lead - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01
Zinc - Dissolved	0.01	mg/L	<0.01	<0.01	<0.01	<0.01
Total Nitrogen in Water Sample No: Sample Description:	LOR	UNITS	15-7050-1 BB5	15-7050-2 BB6	15-7050-3 BB9	15-7050-4 Dam
Total Nitrogen	0.2	mg/L	5.9	3.6	4.1	4.2
TKN	0.2	mg/L	<0.2	<0.2	<0.2	<0.2
Total Phosphorus in Water Sample No: Sample Description:	LOR	UNITS	15-7050-1 BB5	15-7050-2 BB6	15-7050-3 BB9	15-7050-4 Dam
Total Phosphorus	0.01	mg/L	0.05	0.02	0.09	0.03
Ions by Discrete Analyser Sample No: Sample Description:	LOR	UNITS	15-7050-1 BB5	15-7050-2 BB6	15-7050-3 BB9	15-7050-4 Dam
Chloride	5	mg/L	55	21	120	100
Sulphate	1	mg/L	11	8	4	15
Filterable Reactive Phosphorus	0.01	mg/L	0.01	<0.01	0.01	<0.01
NOx-N	0.01	mg/L	5.9	3.6	4.1	4.2
Physical Parameters Sample No: Sample Description:	LOR	UNITS	15-7050-1 BB5	15-7050-2 BB6	15-7050-3 BB9	15-7050-4 Dam
Acidity	5	mgCaCO <sub>3</sub> /L	32	88	32	20
Alkalinity	5	mgCaCO <sub>3</sub> /L	<5	<5	<5	8
Chromium (VI)	0.002	mg/L	<0.002	<0.002	<0.002	<0.002
Conductivity	0.01	mS/cm	0.15	0.12	0.43	0.37
Total Suspended Solids	5	mg/L	51	8	250	<5
pH	0.1	pH units	6.4	6.2	5.2	5.6
Misc. Inorganics in Water Sample No: Sample Description:	LOR	UNITS	15-7050-1 BB5	15-7050-2 BB6	15-7050-3 BB9	15-7050-4 Dam
Hardness	5	mgCaCO <sub>3</sub> /L	14	16	31	30

Analytical Reference Laboratory (WA) Pty Ltd.

 40-42 Furze Road, Thornliebank Western Australia 6101 Telephone: 08 9251 1094 Facsimile: 08 9251 8444  
[www.arl.com.au](http://www.arl.com.au) Email: [arl@arl.com.au](mailto:arl@arl.com.au)

**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## APPENDIX 6 – PRE-LODGEMENT CONSULTATION



**Shire of Chittering**  
Lots 1 & 2 Tea Tree road, Bindoon



## PRE-LODGEMENT CONSULTATION

AGENCY	DATE OF CONSULTATION	METHOD OF CONSULTATION	SUMMARY OF OUTCOME
Shire of Chittering	2012 - 2014	Meetings/Telephone/Emails	Consideration by Shire of Rural Retreat ODP and scheme amendment proposing a variation to lot size to allow for 'cluster type' subdivision of minimum lot size 4ha with average lot size of 10ha to ensure lot density does not exceed Rural Retreat maximum lot yield.  Initial ODP lodged as per above and deferred by Shire.
	26 February 2015	Meeting Manager Planning	Proponent should consider a 'Rural Small Holdings' zone and ODP.
	May 2016	Meeting Manager Planning	Discussions to refine both SA No. 56 and LSP document in light of the Perth-Darwin Alignment
Department of Planning	June – October 2015	Shire consultation with DoP officers on 'Rural Small Holdings' zone	DoP officers support in-principle 'Rural Small Holdings' zone scheme amendment which would be included in Local Planning Strategy review.
Western Power	During 2009	Email/telephone discussion	LSP development area can be connected to reticulated power supply.
Main Roads Department	February 2016	Email/Telephone discussion With Network Manager	Advice and mapping showing indicative location of the Perth-Darwin Highway

Agency Submissions		
Submitter	Comment	Proponent Response
Chittering Landcare	<p>The Chittering Valley Land Conservation District Committee has reviewed the above the proposal and makes the following comments:</p> <ul style="list-style-type: none"><li>(Point 1) The Land Capability Assessment was done by Landform in 2000. Constraints mentioned in the document refer to the threats “shallow groundwater which could be altered by inappropriate land use” and the “presence of significant shallow groundwater flows that form the start of a water flow to Lake Chittering”. 6.4 in the Landform document clearly outline the need to protect a sufficient water flow from Lot 2 to Lake Chittering.</li><li>(Point 2) This property is a recharge area for a waterway which feeds Spoonbill Lake and provides freshwater to the nationally significant wetland, Chittering Lake. At the eastern of this property, the valley, which has been noted by Landform as holding significant amounts of groundwater, feeds into a series of Conservation Category Wetlands (CCW) which support remnant vegetation and an important watering source for the endangered Carnaby’s Cockatoo.</li><li>(Point 3) This valley and the groundwater contained within it are the headwaters of Spoonbill Lake. The recharge area for the groundwater is the area under consideration for development. If each of these properties accesses groundwater via a bore the recharge area will be depleted and the freshwater flow to the Conservation Category Wetland (CCW), Spoonbill Lake and Chittering Lake to the east will cease. This will cause irrevocable damage to the CCW, Spoonbill and Chittering Lake as the flow to the lake provides freshwater all year round. It is the only perennial flow entering Chittering Lake. Chittering Lake is an important breeding area for the Great Egret, Australian White Ibis, Straw-necked Ibis and many other waterbirds. The long neck tortoise occurs in the Lake.</li><li>(Point 4) In February 2014 Parkwood Estate drew down on a bore on their property for road works. This caused the water flow into Spoonbill Lake to cease, the water level dropped considerably and there was no flow into Chittering Lake. Chittering Lake had an exceptionally long dry period and there were fledgling losses. This must be avoided.</li><li>(Point 5) This property has been subject of numerous development proposals. This proposal appears to have simply plotted lots to achieve the greatest lot yield without considering the topography. Although the land is generally not subject to water erosion, when the roads are installed there will be run off from the hard surfaces which may cause scouring. Assessment of the land contours before surveying lots and constructing roads is recommended.</li><li>(Point 6) Figure 6 Hypothetical Rural retreat Subdivision is very different to other diagrams within the document. The text of the document seems to indicate that the owner will continue to utilise. The most eastern parts of the property with development occurring to the west. This needs to be clarified.</li><li>(Point 7) There are no developed special rural areas to the north west or south west of the property – there are special rural areas to the east south east and the north east of the property.</li><li>(Point 8) Landform has noted the land is subject to wind erosion. There will need to be strict conditions about keeping of animals and ground cover to prevent wind erosion. The establishment of mineral earth fire breaks will need to be handled with extreme care.</li><li>(Point 9) Protection of the remnant vegetation on site as recommended by Biodiverse Solutions is supported. Lot 4 Tea Tree Road, which is adjacent to Lot 2, has a number of nesting trees used</li></ul>	<p><b>Shire Officer Response</b></p> <p>The issues affronted by the agency relate to environmental considerations that are required to be addressed by the applicant.</p> <p>While the applicant has been able to address the majority of concerns raised, the applicant admits some facets require additional consideration, such as points 4 and 8.</p> <p>Elements such as the Bindoon bypass have not been formally determined, and as such cannot be held awaiting such a decision from the Minister for Transport.</p> <p>The intent of a Local Structure Plan is to guide the subdivision of all requirement sand limitations such as water, soil management and vegetation management. This Structure Plan does not fully address the requirements satisfactorily.</p>

	<div>by Carnaby's Cockatoos and the wild radish which grows on Lots 1 and 2 is used as a food source by the birds.</div> <div><div><div>(Point 10)</div>It is necessary to inform new landholders how to identify skeleton weed and the owner's responsibility under the BAM Act to control and report this declared weed. This should be a responsibility of either the real estate agent selling the lots or council.</div><div>(Point 11)</div>This property has been degraded for some time. The use of the land for special rural subdivision, provided that a drawn down on groundwater does not occur, may provide opportunity to revegetate the property and reduce wind erosion.</div>
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(Point 12)

\*Note: Comments are as per original submission received by the Shire. Submission comments have not been edited unless for the purposes of confidentiality where necessary.



**MINUTES OF THE ORDINARY COUNCIL MEETING  
WEDNESDAY, 27 JUNE 2012**

**9.1.3 Proposed Extractive Industry and Excavation Licence for Sand and Gravel – Lot 51 (RN 451) Reserve Road, Muchea\***

<b>Applicant</b>	Whelans Pty Ltd on behalf of G & J Edwards
<b>File ref</b>	A10698 P088/11
<b>Prepared by</b>	Brendan Jeans, Senior Planner
<b>Supervised by</b>	Azhar Awang, Executive Manager Development Services
<b>Voting requirements</b>	Normal
<b>Documents tabled</b>	Nil
<b>Attachments</b>	1. Locality Plan (1 page) 2. Excavation Management Plan 3. Schedule of Submissions

**SUBSTANTIVE MOTION / COUNCIL RESOLUTION – 080612**

Moved Cr Gisbon/ Seconded Cr Norton

That Council:

1. **Grant** planning approval for the extractive industry for sand and gravel at Lot 51 (RN 451) Reserve Road, Muchea subject to the following conditions:
  - a. This planning consent shall be for a period of six (6) years from the date of issue until the 30 June in the year specified as the year of expiration. The proponent may apply for an extension of the approval for a further period of up to six (6) years. This application is to be made no later than three (3) months prior to the expiry of the current consent;
  - b. This planning consent shall only apply to Stage 1 as shown on the Excavation Plan prepared by Bio Diverse Solutions dated 26/4/12 submitted with the application;
  - c. The excavation licence shall be for a period of three (3) years from the date of issue until the 30 June in the year specified as the year of expiration. The proponent may apply for an extension of the licence for a further period of up to two (2) years. Each of these applications is to be made no later than three (3) months prior to the expiry of the current licence;
  - d. The excavation licence shall only remain valid while there is the appropriate planning approval in place to support the extraction of materials;
  - e. Prior to the issue of an excavation licence a guarantee/bond or other acceptable form of security shall be lodged with or paid to the Shire of Chittering in accordance with the amount stipulated in Schedule 3 of the By-law Relating to Extractive Industries;
  - f. Prior to the issue of an excavation licence the Applicant shall obtain a letter from the Tenement Holder stating no objection to the application and forward a copy of the response to Council;
  - g. Prior to the issue of an excavation licence the applicant shall establish a suitable buffer of the excavation from the remnant vegetation to the satisfaction of the Chief Executive Officer;





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- h. Prior to the issue of an excavation licence the Applicant is to establish a buffer area of 500m from all nearby residences, proposed pits, stockpile and loading areas on the site plan;**
- i. Prior to the issue of an excavation licence a Fire Management Plan is to be prepared to the satisfaction of the Chief Executive Officer, in accordance with Local Planning Policy No 21;**
- j. Prior to the issue of an excavation licence a Refuelling Management Plan is to be prepared to the satisfaction of the Chief Executive Officer, incorporating:**
  - i. All on-site fuel storage and refuelling to take place within a lined and bunded area;**
  - ii. Any fuel leakages or spills to be cleaned up within 24 hours;**
  - iii. As part of the close-out plan, contaminated soil to be disposed of to the satisfaction of the Chief Executive Officer;**
- k. Prior to the issue of an excavation licence the Applicant shall submit to the Chief Executive Officer evidence of currency of public liability insurance for the excavation works. The issue of the approval shall not, in any way, render the Shire of Chittering liable for damage or injury of any kind to any member of the public; such liability shall be the sole responsibility of the Applicant. The Applicant shall ensure that he/she and/or the excavating contractor and/or transportation contractor hold sufficient public liability insurance cover for any claim against them;**
- l. Prior to the issue of an excavation licence:**
  - i. An assessment shall be conducted to determine whether acid sulphate soils or dieback are present on the land and, if present, their extent and severity;**
  - ii. that the samples be taken from the site by independent qualified persons;**
  - iii. If the site is found to contain acid sulphate soils or dieback, an Acid Sulphate Soils Management Plan (ASSMP) or Dieback Management Plan shall be submitted and approved by the Chief Executive Officer in consultation with the Department of Environment and Conservation; and**
  - iv. Operations shall be carried out in accordance with the provisions of the approved Management Plan;**
- m. Prior to the issue of an excavation licence the Applicant shall enter into an agreement with the Council for payment of fees for road construction and road maintenance of Yalyal Road and Reserve Road;**
- n. Prior to the issue of an excavation licence the Applicant shall submit a Traffic Management Plan for the upgrade, use and maintenance of Yalyal Road and Reserve Road;**
- o. Prior to the issue of an excavation licence the applicant is to undertake an assessment study of the flora and fauna, to the satisfaction of the Department of Environment and Conservation, and all areas containing rare or endangered species of flora and fauna shall be protected and no excavation shall be permitted in these areas;**
- p. Prior to the issue of an excavation licence the Applicant is to provide the water catchment management plan ;**





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- q. Prior to the issue of an excavation licence the Applicant is to obtain the works approval from the Department of Environment and Conservation ;
- r. Prior to the issue of an excavation licence a Rehabilitation or Land Management Plan shall be submitted and approved by the Chief Executive Officer incorporating:
  - i. Statement of end use;
  - ii. Final contouring plan, rehabilitation and land management;
  - iii. Demarcation of surface water catchments; excavation pit hydrology and water balance;
  - iv. Revegetation and landscaping; and
  - v. Ongoing monitoring requirements.
- s. Prior to the issue of an excavation licence a Soil and Water Monitoring Program, including methodology, periodic sampling and analysis by an independent laboratory, shall be submitted and approved by the Chief Executive Officer in consultation with the Department of Environment and Conservation and Department of Water, incorporating:
  - i. Monitoring of removed material, irrespective of whether the excavation area is within a location identified as 'high risk' of containing acid sulphate soil material or there is an approved ASSMP; and
  - ii. Monitoring of water quality retained within on-site excavations;
  - iii. Identify the highest known groundwater level in proposed excavation Stage A;
  - iv. A Catchment Management Plan for Stage 1;
- t. Prior to the issue of an excavation licence the applicant is to submit a detailed Dust Management Plan to the satisfaction of the Chief Executive Officer;
- u. Top soil from the excavated areas shall be stockpiled and used where applicable in the rehabilitation process;
- v. All stormwater shall be retained on site and no discharge of pit-water shall occur without prior approval from Chief Executive Officer;
- w. Appropriate dust suppression measures shall be taken at all times where any operation on the site is likely to generate a dust nuisance to nearby residents, to the satisfaction of the Chief Executive Officer;
- x. Internal access road shall be constructed to a standard that minimises dust emission from machinery and traffic, to the satisfaction of the Chief Executive Officer;
- y. Access shall be via Yalyal Road and Reserve Road only;
- z. The operations shall comply with the requirements of the Environmental Protection (Noise) Regulations 1997 in respect to noise but, notwithstanding, the operations to have due regard to the health and amenity of any person in the vicinity;



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- aa. The development shall comply with the provisions of Council's Town Planning Scheme No 6, By-law Relating to Extractive Industries, Health Act 1911, Building Code of Australia and any other relevant Acts, Regulations, Local Laws and Council Policies, except where varied by this approval;
- bb. All vehicle loads leaving the site shall be fully covered and secured prior to leaving the site to prevent the spread of material;
- cc. A maximum of four (4) single truck movements are permitted on a daily basis;
- dd. The hours of operation shall be limited to:  
 Monday to Friday 0700hrs to 1800hrs  
 Saturday 0730 to 1700hrs  
 Sunday and Public Holidays not permitted  
 Any variation to these times requires written approval from Council;
- ee. Excavation for the extractive industry shall not occur in the following areas:
  - i. Within 100 metres of a boundary of any land not owned by the proponent or Planning Consent holder;
  - ii. Within 20 metres of any land affected by a registered grant of easement;
  - iii. Within 40 metres of any designated water course;
  - iv. Within 500 metres of any house;
  - v. Below the level of winter groundwater table; and
  - vi. Within 40 metres of any road or road reserve.
  - vii. Below 6m from the natural ground level.
- ff. Upon decommissioning of each pit, rehabilitation shall take place in accordance with the approved plan using the stockpiled topsoil and replanting of appropriate local native species as recommended by the Chief Executive Officer;
- gg. The maximum area of pit being worked at any one time shall be one (1) hectare;
- hh. Rehabilitation of each pit shall include surface water control measures on all pit faces to prevent gully erosion, and final batters to be graded to provide safe entry and exit slopes should access to any standing water within the pit e required or accidentally occur;
- ii. Materials imported for rehabilitation or other purposes shall be certified free of dieback or other plant diseases;
- jj. Any amendments or variations to the rehabilitation or land management plan associated with the excavation shall be approved in writing by the Chief Executive Officer;
- kk. All static and other equipment will be located on the floor of the quarry to provide visual and acoustic screening;
- ll. No trucks are to be parked on any public road after hours;
- mm. An annual report shall be submitted to the Chief Executive Officer prior to 30 June each year that includes:



MINUTES OF THE ORDINARY COUNCIL MEETING  
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- i. The progress of excavation;
- ii. Depth to groundwater from each pit floor;
- iii. The amount of materials extracted;
- iv. Monitoring program results and findings;
- v. Progress of rehabilitation;
- vi. Contingency actions and outcomes; and
- vii. Community complaints and responses.

Failure to submit the annual report prior to the close of business 30 June each year will result in the immediate suspension of the excavation licence.

- nn. If the development, the subject of this approval, is not substantially commenced within a period of twelve months from the date of the approval, the approval shall lapse and be of no further effect;
  - oo. Development and operation shall occur in accordance with the Excavation Management Plan submitted with the application for planning approval, unless specified otherwise in this approval;
  - pp. Breach of any conditions may result in cancellation of this approval;
  - qq. The approval of Main Roads WA may be required in regard to the egress and ingress to the Great Northern Highway;
  - rr. Materials extracted from the site must not exceed 100,000 tonnes per annum. A record of each year's output must be kept on the site and must be provided to Council at any time upon request;
  - ss. Stockpiles will be located on the floor of the pit to reduce visual impact;
  - tt. There will be no processing of materials on site. Materials shall be stockpiled or directly transported for use;
  - uu. No water is to be removed from Yalyal brook.
2. Delegate authority to the Chief Executive Officer to issue an excavation licence for sand and gravel at Lot 51 Reserve Road, Muchea in accordance with the planning consent specified in 1. Above, on satisfaction of conditions e, f, g, h, i, j, k, l, m, n, o, p, q, r, s and t.

**Advice Note:**

- 1. Should an Applicant be aggrieved by a decision of Council, the State Administrative Tribunal can be requested to review the decision. Such a request should be lodged within twenty-eight (28) days of Council's decision.
- 2. The Department of Environment and Conservation may require a permit for the clearing of native vegetation.

THE SUBSTANTIVE MOTION WAS PUT AND DECLARED CARRIED 4/2  
7.57PM



#### 9.1.4 Deed of Agreement: Lot 51 Reserve Road, Muchea\*

<b>Report date</b>	18 November 2015
<b>Applicant</b>	Whelans Pty Ltd
<b>File ref</b>	A10698; P088/11
<b>Prepared by</b>	Brendan Jeans, Senior Planning Officer
<b>Supervised by</b>	Bronwyn Southee, Executive Manager Development Services
<b>Declaration</b>	Bronwyn Southee declared an impartiality interest in this item as a former employee of Whelans Pty Ltd.
<b>Voting requirements</b>	Simple Majority
<b>Documents tabled</b>	Nil
<b>Attachments</b>	1. Deed document 2. Location Plan 3. Approval for EIL for Extractive Industry

#### Executive Summary

Council's consideration is requested for the authorisation of a legal agreement relating to the road upgrade, use and maintenance of Reserve and Yalyal Road for an extractive industry approval at Lot 51 Reserve Road, Muchea (see below).



#### Background

On 27 June 2012, Council resolved to grant Planning Approval for an extractive industry at Lot 51 Reserve Road, Muchea subject to a number of conditions. Condition m) required the landowner to enter into a legal agreement with the Shire to outline the road upgrade, use and maintenance requirements for Reserve and Yalyal Road. The legal agreement is to be put in place to protect the Shire's assets and ensure adequate upgrade and maintenance of the roads is carried out to an agreed standard.

The upgrade of the road has been agreed to be an initial grade to remove ruts and fine material. Due to the low number of truck movements for the extractive industry (no greater than 4 per day), upgrade to a seal standard of over 1km of road was considered excessive.

The road maintenance provisions in the Deed not only include re-grading as and when requested by the Shire, but also includes dust mitigation. The maintenance of the road is to be monitored by the Shire, however, the Shire may appoint a consultant at the cost of the applicant. This has been inserted in the Deed



to avoid any ambiguity and dispute between parties about the requirement for appropriate road maintenance and in the event the Shire lacks the resources to carry out frequent inspections.

The Shire has also inserted the possible future upgrade of Reserve Road factored into the Deed. This would mean should Reserve Road be upgraded to a seal standard as a result of another subdivision or development being approved, the road maintenance obligations would cease, however, a road maintenance monetary contribution at \$0.25 per tonne excavated from the site would be required. A bond of \$10,000 would also be held by the Shire at all times in the case that the required works and or per tonne contribution not be undertaken/paid.

### Consultation

Consultation has been undertaken between Shire officers, Mcleods Solicitors, the owner and the applicant to progress the details of the Deed.

### Statutory Environment

State: Transfer of Land Act 1893  
Land Administration Act 1997

### Policy Implications

Local: 1.5 Execution of Documents

### Financial Implications

All associated costs are borne by the applicant/owner.

### Strategic Implications

The requirement of deeds is to ensure that agreements between landowners and the Shire are carried through. Additionally it ensures that the burden of maintenance/actions does not fall within the Shire.

### Site Inspection

Site inspection undertaken: Yes

The Shire's Executive Manager Technical Services has met with the owner and engineering consultants to view Reserve and Yalyal Road.

### Triple Bottom Line Assessment

#### Economic implications

One of the underlying purposes of this Deed is to ensure no additional costs are borne by the Shire for the maintenance of the road, beyond the normal maintenance program, as a result of increased truck movements from the extractive industry.

The Deed protects the Shire from any associated costs.

#### Social implications

There are no known significant social implications associated with this proposal.

#### Environmental implications

There are no known significant environmental implications associated with this proposal.

### Comment

The applicant has slowly been progressing the 'prior to' conditions for the extractive industry approved by Council in June 2012. All 16 'prior to' conditions have now been completed with the exception of this legal





MINUTES FOR ORDINARY MEETING OF COUNCIL  
WEDNESDAY, 18 NOVEMBER 2015

agreement (condition m) and bank guarantee/bonds (condition e), which the applicant has advised will be completed following the Deed being finalised.

Based on the above, it is the Officer's Recommendation that Council authorises the execution of the Deed relating to the upgrade, use and maintenance of Reserve Road and Yalyal Road for the extractive industry at Lot 51 Reserve Road, Muchea.

**9.1.4 OFFICER RECOMMENDATION / COUNCIL RESOLUTION 051115**

**Moved Cr King / Seconded Cr Rossouw**

**That Council authorise the Shire President and Chief Executive Officer to sign and affix the Common Seal on the Deed of Agreement for the road upgrade, use and maintenance requirements for Reserve and Yalyal Road in relation to the approved Extractive Industry on Lot 51 Reserve Road, Muchea.**

**THE MOTION WAS PUT AND DECLARED CARRIED 7/0**



## 9. REPORTS

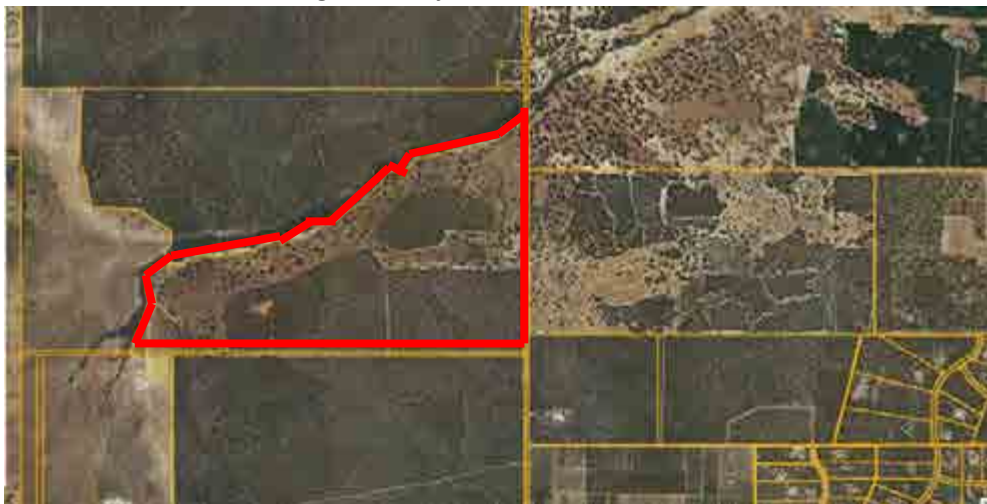
### 9.1 DEVELOPMENT SERVICES

#### 9.1.1 Request to Reconsider Conditions to Extractive Industry: Lot 51 (RN 451) Reserve Road, Chittering\*

<b>Report Date</b>	15 June 2016
<b>Applicant</b>	Whelans
<b>File ref</b>	A10698; P088/11
<b>Prepared by</b>	Stephanie Gladman, Planning Officer
<b>Supervised by</b>	Bronwyn Southee, Executive Manager Development Services
<b>Declaration</b>	Bronwyn Southee declared an impartiality interest in this item as a former employee of Whelans Pty Ltd
<b>Voting requirements</b>	Simple Majority
<b>Documents tabled</b>	Nil
<b>Attachments</b>	<ol style="list-style-type: none"> <li>1. Locality Plan</li> <li>2. Council Minutes (Planning Approval) 27 June 2012</li> <li>3. Council Minutes (Deed of Agreement) 18 November 2015</li> <li>4. Applicants letter for Reconsideration of Conditions</li> <li>5. Revised Shawmac Technical Note (2016)</li> </ol>

#### Executive Summary

Council's consideration is requested in relation to amending a condition placed on a Development Application for an Extractive Industry approval for the extraction of sand and gravel on Lot 51 Reserve Road, Chittering. It was resolved at Council's 27 June 2012 Ordinary Council meeting (OCM) to approve the application to extract sand and gravel subject to conditions.



**Background**

On 27 June 2012, Council resolved to grant Planning Approval for an extractive industry at Lot 51 Reserve Road, Muchea subject to several conditions. Condition "m." required the landowner to enter into a Deed of Agreement with the Shire to outline the road upgrade, use and maintenance requirements for Reserve and Yalyal Roads. The Deed of Agreement was established to protect the Shire's assets and ensure adequate upgrade and maintenance of the roads is carried out to an agreed standard.

The upgrade of the road was agreed to be an initial grade to remove ruts and fine material. Due to the low number of truck movements (as per Condition "cc.") for the extractive industry (no greater than four per day), upgrade to a seal standard of over 1km of road was considered excessive.

The road maintenance provisions in the Deed not only include re-grading as and when requested by the Shire, but also included dust mitigation. The maintenance of the road is to be monitored by the Shire; however, the Shire may appoint a consultant at a cost to the applicant.

A number of 'prior to' conditions have been required to be completed by the applicant and have only recently been finalised including a Deed of Agreement pertaining to the ongoing contribution to road maintenance on the roads utilised by the vehicles associated with the extractive industry. This deed was formalised and endorsed by Council at its 18 November 2015 OCM.

In January 2016, the Shire received a request from the applicant to either have Condition "cc." removed or amended to state:

*"cc. An average of twenty (20) single truck movements are permitted on a daily basis."*

In the supporting documentation accompanying the application for amendment, the application has stated that:

*"it is requested that this condition be removed or amended as it restricts the commercial viability of the extractive industry. The Approval was for the extraction of a maximum of 100,000 tonnes per annum (Condition rr). A restriction on the number of truck movements per day contradicts the condition restricting the maximum tonnage."*

*As outlined in the attached email correspondence during the assessment of the application the Shire requested details of traffic volumes and the number of truck movements per day. In response it was advised that the number of movements would be dependent on market demand and as an estimate there would be an average of 4 movements a day. It was advised by the Shire that the information was required to determine road contribution amounts and there was no mention that the number of movements advised would be restricted by a condition of approval. Therefore Condition cc should not have specified a maximum of 4 truck movements as that was an estimated average amount only.*

*In accordance with Condition m of the approval, the applicant has now entered into a Road Maintenance Agreement with the Shire, which requires the applicant to maintain and repair Reserve Road to a mutually acceptable standard.*

*There is also a condition on the Approval (Condition dd), which restricts the hours of operation.*



*It is considered that Conditions dd, m and rr achieve the same outcome as a restriction on the number of daily truck movements and therefore it is requested that Condition cc be removed from the Approval. If the Shire still considers a restriction on the number of vehicles necessary it is requested that the condition be amended to read as follows:*

*cc: An average of twenty (20) single truck movements are permitted on a daily basis”.*

It should be noted that the Deed of Agreement was developed and recently formalised (November 2015 OCM) on the basis that the standard of grading and maintenance was for the movement of 4 vehicles per day in accordance with the Conditions of Approval dated 27 June 2012.

### Consultation

The application for the removal/modification to Condition “cc.” was referred to the Shire’s Executive Manager Technical Services. He advised that due to the proposed increase in heavy traffic that additional conditions be added to ensure that the applicant would upgrade and maintain the road to a more acceptable standard.

These comments have been integrated into the conditions recommended by the Shire Officer.

### Statutory Environment

State: Planning and Development Act 2005

Planning and Development (Local Planning Schemes) Regulations 2015

Schedule 2 of the Regulations sets out ‘Deemed Provisions for local planning schemes’, which came into effect 19 October 2015. These Deemed Provisions act as part of the Scheme and replace any inconsistent provisions in the Shire’s Town Planning Scheme. In this case the Shire’s Town Planning Scheme clause relating to an amendment to a Planning Approval has been replaced.

Clause 77 of the Regulations now allows for the local government to consider the amendment of a development approval.

Local: Shire of Chittering Town Planning Scheme No 6

Lot 51 Reserve Road is zoned ‘Agricultural Resource’. The objectives of this zone are:

- *To preserve productive land suitable for grazing, cropping and intensive horticulture and other compatible productive rural uses in a sustainable manner;*
- *To protect the landform and landscape values of the district against despoliation and land degradation;*
- *To encourage intensive agriculture and associated tourist facilities, where appropriate;*
- *To allow for the extraction of basic raw materials where it is environmentally and socially acceptable.*

A portion of the property is located within the ‘Landscape Protection Area’ and a smaller portion within the ‘Water Prone’ Special Control Areas identified by the Scheme.

The intent of the Landscape Protection is Special Control Area is to preserve productive agricultural land and protect the environmental and landscape values. The requirements of the Special Control Area help to achieve this through appropriate siting and minimising extent of clearing.



Local: Shire of Chittering Extractive Industry Local Law 2014

In relation to the Shire of Chittering's *Extractive Industry Local Law 2014* it is reflected under *Section 3.2 Transport of material*, under licencing requirements that:

- (2) *The licensee must pay to the local government, as and when required by the local government, the costs or estimated costs, as determined by the local government, of repairs and maintenance to any road that are required as a result of the transport of materials from the site.*
- (3) *If a road on a route prescribed under subclause (1) is inadequate for the transport of materials from the site, the local government may require the licensee to pay all or part of the costs or estimated costs, as determined by the local government, of upgrading the road to the standard required by the local government for these purposes.*

### Policy Implications

*1.5 Execution of documents*

### Financial Implications

Nil

### Strategic Implications

Local: Shire of Chittering Local Planning Strategy 2001-2015

Lot 51 Reserve Road has been identified within the Shire's Local Planning Strategy for potential rural retreat development. The document also originally outlined the extended Perth to Darwin Highway would impact upon the property.

More recently the alignment pertaining the Perth to Darwin Highway has been modified, which should not have an effect on the property.

### Site Inspection

Not applicable

### Triple Bottom Line Assessment

#### Economic implications

There are no known significant economic implications associated with this amendment request.

#### Social implications

There are no known significant social implications associated with this amendment request.

#### Environmental implications

There are no known significant environmental implications associated with this amendment request.

### Comment

It is requested that Council reconsider Condition "cc." in relation to the extractive industry development application approval granted at the 27 June 2012 OCM in relation to the extraction of Sand and Gravel on Lot 51 Reserve Road, Muchea.





As part of the original approval (refer Attachment 2) the applicant was required to enter into an agreement pertaining to an ongoing financial contribution towards the maintenance and upkeep of Reserve/Yalyal Road with the Shire (Condition "m."). This Deed of Agreement was supported by Council at its 18 November 2015 OCM. This agreement however was formalised in accordance with the prescribed four vehicle movements per day which was included as Condition "cc." in the approval. No provision for increasing and/or improving the grading and material if there was to be an increase in vehicle movements.

With the applicant proposing a significant increase in heavy vehicle movements (from the original approved 4 per day, to if the application to amend the original approval is supported to 20) an increase in vehicle movements would likely result in higher degradation of this unsealed portion of the road. If Council were to support the increase to 20 vehicles per day, then it is the Shire Officer's recommendation that the Deed be revised to require the applicant to upgrade the road to sealed standard to the satisfaction of the Chief Executive Officer

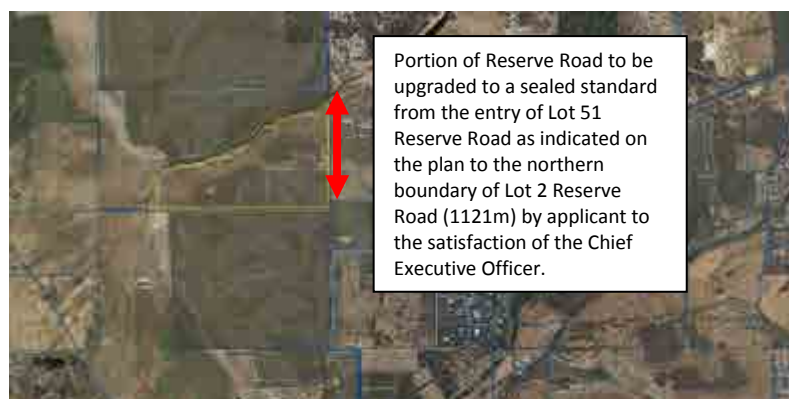
In the report previously presented to Council (18 November 2015) in relation to the Deed of Agreement it was stated that:

*"The Shire has also inserted the possible future upgrade of Reserve Road factored into the Deed. This would mean should Reserve Road be upgraded to a sealed standard as a result of another subdivision or development being approved, the road maintenance obligations would cease, however, a road maintenance monetary contribution at \$0.25c per tonne excavated from the site would be required. A bond of \$10,000 would also be held by the Shire at all times in the case that the required works and/or per tonne contribution not be undertaken/paid."*

The deed does stipulate in *Clause 4.2 Road Maintenance Contribution Clause 4.2.4* that 'if no fee is stipulated for the road maintenance contribution in the Shire's Fees and Charges then the fee for the purposes of clause 4.2 (2) is \$0.25. subject to review pursuant to clause 4.2 (5)'.

In 2015, the Shire's Fees and Charges pertaining to road maintenance were increased from \$0.25 to \$0.50 and hence this change in fee is included in the revised conditions.

In April 2016, the applicant provided the Shire with a revised Traffic Impact Statement (TIS) pertaining to the increased number of truck movements (i.e. from four to 20) also taking into consideration the proposed subdivision of Lot 2 Reserve Road and the potential impact of dust nuisance.



Based on the comments above, it is recommended that Council support the condition amendment subject to the conditions below.



### 9.1.1 OFFICER RECOMMENDATION

Moved Cr Osborn / Seconded Cr Gibson

That Council amend the Planning Approval dated 27 June 2012 (P088/11) for the extraction of gravel and sand at Lot 51 (RN 451) Reserve Road, Muchea by:

1. amending Condition "1a." to read as follows:  
*"1a. This planning consent shall be for a period of six (6) years from the date of issue of the amendment to conditions until 30 June 2022."*
2. amending Condition "cc." to read as follows:  
*"cc. A maximum of twenty (20) single truck movements are permitted on a daily basis."*
3. adding the following conditions under Condition "cc.":  
  - "i. Satisfactory arrangements being made with the local government for the full cost of upgrading and/or construction of Reserve Road in the locations as shown in this report (1121m) to the satisfaction of the Chief Executive Officer;*
  - ii. Provide a contribution to the Shire of \$0.50 per tonne excavated from the extractive industry application to the Shire for the maintenance of the Road;"*
4. adding the following new Condition "vv.":  
*"vv. The applicant is to prepare a revised Deed of Agreement (as per Condition "m.") in regards to the upgrade of the road(s) to a sealed standard to be authorised by the Shire President and Chief Executive Officer to sign and affix the Common Seal. There shall be no increase in traffic movements until the deed is signed and road upgraded;"*
5. adding the following points to the Advice Note of the approval:
  - "3. This is an amendment to Planning Approval P088/11 granted 27 June 2012, all other conditions in the original approval still stand.*
  - 4. The applicant has a right of review to the State Administrative Tribunal should the applicant be aggrieved by Council's decision. Such a review should be lodged to the State Administrative Tribunal within twenty-eight (28) days of Council's decision.*
  - 5. The applicant will be required to apply for and gain approval for an Extractive Industry License prior to any extractive works being undertaken onsite"*

### AMENDMENT

Moved Cr Gibson / Seconded Cr King

That the following point 6 be added to the Advice Note:

- "6. That the Shire apply to Main Roads WA to impose a 70km speed limit on Reserve Road."*

THE AMENDMENT WAS PUT AND DECLARED CARRIED 7/0  
AND FORMED PART OF THE SUBSTANTIVE MOTION



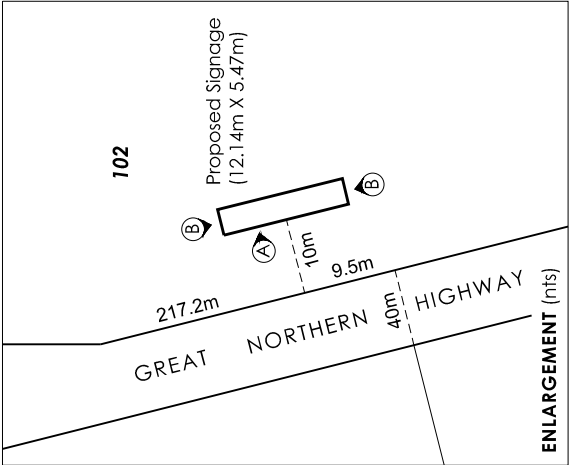
#### 9.1.1 OFFICER RECOMMENDATION / COUNCIL RESOLUTION 030616

Moved Cr Osborn / Seconded Cr Gibson

That Council amend the Planning Approval dated 27 June 2012 (P088/11) for the extraction of gravel and sand at Lot 51 (RN 451) Reserve Road, Muchea by:

1. amending Condition "1a." to read as follows:  
*"1a. This planning consent shall be for a period of six (6) years from the date of issue of the amendment to conditions until 30 June 2022."*
2. amending Condition "cc." to read as follows:  
*"cc. A maximum of twenty (20) single truck movements are permitted on a daily basis."*
3. adding the following conditions under Condition "cc.":  
  - "i. Satisfactory arrangements being made with the local government for the full cost of upgrading and/or construction of Reserve Road in the locations as shown in this report (1121m) to the satisfaction of the Chief Executive Officer;*
  - ii. Provide a contribution to the Shire of \$0.50 per tonne excavated from the extractive industry application to the Shire for the maintenance of the Road;"*
4. adding the following new Condition "vv.":  
*"vv. The applicant is to prepare a revised Deed of Agreement (as per Condition "m.") in regards to the upgrade of the road(s) to a sealed standard to be authorised by the Shire President and Chief Executive Officer to sign and affix the Common Seal. There shall be no increase in traffic movements until the deed is signed and road upgraded;"*
5. adding the following points to the Advice Note of the approval:
  - "3. This is an amendment to Planning Approval P088/11 granted 27 June 2012, all other conditions in the original approval still stand.*
  - 4. The applicant has a right of review to the State Administrative Tribunal should the applicant be aggrieved by Council's decision. Such a review should be lodged to the State Administrative Tribunal within twenty-eight (28) days of Council's decision.*
  - 5. The applicant will be required to apply for and gain approval for an Extractive Industry License prior to any extractive works being undertaken onsite*
  - 6. That the Shire apply to Main Roads WA to impose a 70km speed limit on Reserve Road."*

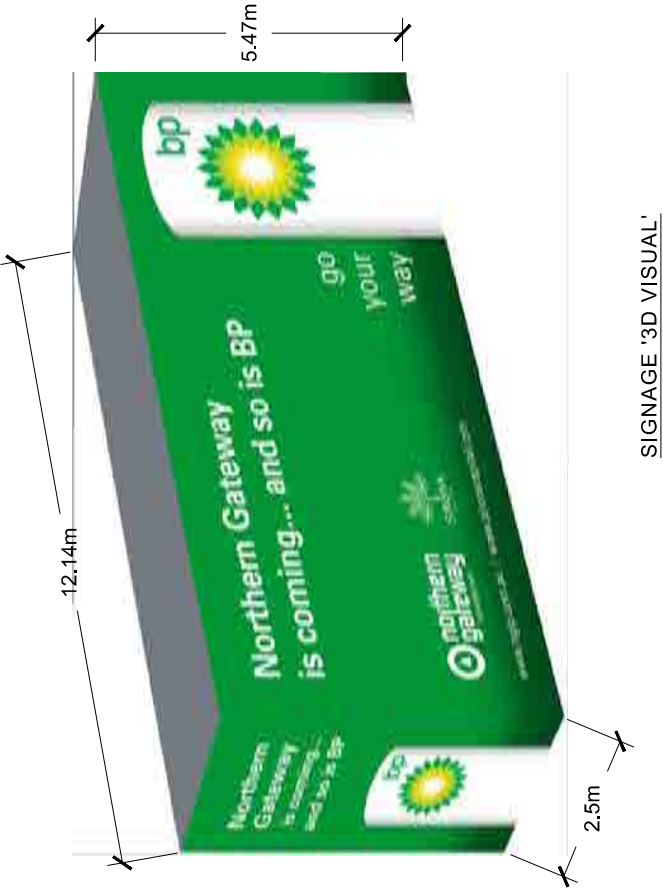
THE SUBSTANTIVE MOTION WAS PUT AND DECLARED CARRIED 5/2



ELEVATION 'A'



ELEVATION 'B'



# Local Planning Policy No .7

## OUTBUILDINGS





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## STATUTORY CONTEXT

The Shire of Chittering, as enabled under Division 2, Schedule 2 of the deemed provisions, hereby makes this Local Planning Policy (LPP) regarding Outbuildings.

Any LPP prepared under this part shall be consistent with the Scheme and if any inconsistency arises the Scheme shall prevail.

A LPP is not part of the Scheme and shall not bind the Local Government in any respect of any application for development approval, but the local government shall have due regard to the provisions of any policy, and the objectives which the policy is designed to achieve before making its decision.

This LPP applies to all land zoned within the Scheme area and supersedes Local Planning Policy No.7 (adopted 16 July 2008).

## 1.0 DEFINITIONS

The following are definitions that relate directly to the application of this policy:

*“Attached”* means that a structure is structurally joined or joined at the roof to another roof.

*“Building Envelope”* means the area of land within a lot marked on a plan approved by the responsible authority within which all buildings and effluent disposal facilities on the lot must be contained within a defined building envelope that may be cleared for the purposes of erecting a dwelling, outbuildings and management of vegetation for gardens, car parking, driveways and fire hazard reduction.

*“Building Setback Area”* means the area of any lot between the property boundary and the building setback line, measured at right angles (90 degrees) to the boundary (Residential Design Codes).

*“Carport”* - means a roofed structure designed to accommodate one or more motor vehicles unenclosed except to the extent that it abuts a dwelling or a property boundary on one side, and being without a door unless that door is visually permeable.

*“Council”* - means the elected members of the Shire.

*“Deemed provisions”* - means the provision designated as a deemed provision under section 256(5)(b) of the *Planning and Development Act 2005*. Deemed provisions, as amended from time to time, have effect and may be enforced as part of each local planning scheme to which they apply, whether they are prescribed before or after the scheme comes into force.

*“Detached”* means that no part of a structure is joined to any part of another structure.

*“Development”* as defined under the *Planning and Development Act 2005*, as amended.

*“Development site”* means a parent lot in which development is proposed.

*“Enclosed”* means an area bound on three or more sides by a permanent wall and covered in a water impermeable material.

*“Garage”* means any enclosed roofed structure, other than a carport, designed to accommodate one or more motor vehicles and may or may not be attached to a dwelling. Garages that are included under the main roof of the residence are not subject to this policy.

*“Habitable building”* a Class 10 building as defined under the National Construction Code Series and includes the term “donga”.

*“Integrated”* means that a garage or outbuilding is constructed of a similar roof pitch, colours, materials and design in reference to the existing dwelling's roof pitch, colours, materials and design.

"*Natural ground level*" means the levels on a site which precede the proposed development, excluding any site works unless approved by the decision-maker or established as part of subdivision of the land preceding development.

"*Non-habitable building*" means a Class 10 building as defined under the National Construction Code Series. Note: for a structure detached from the dwelling to be considered habitable it must be built to a Class 1 standard prescribed under the National Construction Code Series.

"*Outbuilding*" means an enclosed non-habitable structure that is detached from any dwelling. Non-habitable buildings are defined as a Class 10A building under the *Building Code of Australia*. For the purposes of this policy, animal feed bins, dongas and water tanks do not constitute an outbuilding.

"*Patio*" means an unenclosed structure covered in a water impermeable material which may or may not be attached to a dwelling.

"*Residential Design Codes*" as referenced under *State Planning Policy 3.1 - Residential Design Codes*.

"*Ridge Height*" means the maximum vertical distance between the natural ground level immediately beneath and the finished roof height directly above.

"*Rural living*" as defined in *State Planning Policy 2.5 - Rural Planning Policy*.

"*Scheme*" means *Local Planning Scheme No.6*, as amended.

"*Shire*" means Shire of Chittering.

"*Substantially commenced*" means that some substantial part of work in respect of a development approved under a planning scheme or under an interim development order has been performed.

"*Unenclosed*" means an area bounded on no more than two sides by a permanent wall and covered in a water impermeable material.

"*Wall height*" means the maximum vertical distance between the finished natural ground level immediately beneath and the finished wall height directly above.

## 2.0 OBJECTIVES

The objectives of this policy are:

- To allow for appropriate outbuildings that do not have adverse impacts on the streetscape, character, amenity or environmental attributes of the surrounding area.
- To facilitate and differentiate legitimate forms of short-term accommodation.
- To protect the natural vegetation, water quality and landscape amenity of the Shire.
- To vary the deemed-to-comply provisions of the *R-Codes for Design Principles 5.4.3 - Outbuildings*.



### 3.0 POLICY STATEMENT

This policy applies to outbuildings, including detached patios, garages and carports on development sites within the Scheme area.

The following provisions are intended to guide and regulate the design and positioning of outbuildings to ensure a balance between legitimate forms of storage and hobby requirements of landowners and potential amenity and landscape impacts.

## 4.0 EXEMPTIONS FROM DEVELOPMENT APPROVAL

- 4.1.1 A person must not commence the construction of an outbuilding on land within the Scheme area unless:
- (a) the person has obtained development approval of the Shire; or
  - (b) the development is of a type that is referred to in *Clause 4.1.2* below.
- 4.1.2 Under *Clause 61(1)(i)* of *Schedule 2* of the deemed provisions, the following exemptions from development approval apply:
- (i) Development approval of the Shire is not required for the development of an outbuilding with an area of 10m<sup>2</sup> or less.
  - (ii) Development approval of the Shire is not required for the development of an outbuilding with an area of greater than 10m<sup>2</sup>, provided that it complies with the maximum development requirements outlined within Section 5, in R-Coded areas and Rural Living zones.
  - (iii) Development approval of the Shire is not required for the development of an outbuilding with an area of less than 300 m<sup>2</sup>, with a maximum wall height of 5.5m and a total ridge height of 5.5m measured from natural ground level where it is incidental to the primary land use, in the Agricultural Resource zone.

The above exemptions from development approval apply, unless the development is located in a place that is:

- (i) entered in the Register of Heritage Places under the *Heritage of Western Australia Act 1990*;
- (ii) the subject of an order under the *Heritage of Western Australia Act 1990*;
- (iii) included on a heritage list prepared in accordance with the Scheme;
- (iv) within an area designated under the Scheme as a heritage area;
- (v) the subject of a heritage agreement entered into under the *Heritage of Western Australia Act 1990, Section 29*;
- (vi) within a Special Control Area under the Scheme;
- (vii) within a designated Bushfire Prone Area as identified by the Fire and Emergency Services Commissioner; and / or
- (viii) accessed by an unconstructed road.

## 5.0 MAXIMUM DEVELOPMENT REQUIREMENTS

### 5.1 Maximum standards for outbuildings in R-Coded areas

5.1.1 The erection of an outbuilding shall be on the same lot as an existing single house or a grouped dwelling.

5.1.2 In addition to the deemed-to-comply requirements for *Part 5.4.3, C3 iii, iv and v* of the *R-Codes*, the following shall apply:

R-Coded areas	Gross total area (m <sup>2</sup> )	Wall height (m)	Ridge height (m)
R2.5 and below	120	3.5	3.5
R10/30	70	3	4.5

5.1.3 Maximum standards do not override the deemed-to-comply requirements of Table 1 of the *R-Codes* or any specific Scheme requirements.

5.1.4 Outbuildings shall be located in cleared areas, behind the main residential building line in accordance with Schedule 1 of this policy.

5.1.5 The gross total area is cumulative.

### 5.2 Maximum standards for outbuildings in Rural Living zones

5.2.1 The erection of an outbuilding shall be on the same lot as an existing single house or a grouped dwelling.

5.2.2 For Rural Living zones, the following shall apply:

Rural living zones	Gross total area (m <sup>2</sup> )	Wall height (m)	Ridge height (m)
Rural Residential	200	4	5
Rural Smallholding	300	4.5	5.5
Rural Retreat	300	5	5.5

5.2.3 Maximum standards do not override any specific *Scheme* requirements.

5.2.4 Setbacks shall be in accordance with *Clause 4.8.2* of the *Scheme*. Where building envelopes do not apply, development shall be located a minimum of 30 metres from any natural water body; 6 metres from firebreaks and 1.8 metres from septic tanks and leach drains.

5.2.5 Outbuildings shall be located in cleared areas, behind the main residential building line in accordance with Schedule 1 of this policy.

5.2.6 The gross total area is cumulative.

**5.3 Appearance**

- 5.3.1 Masonry wall and roof cladded outbuildings shall be constructed of non-reflective material that is sympathetic to the surroundings and finish of the existing dwelling on the development site.
- 5.3.2 Factory applied steel wall and roof cladded outbuildings shall be constructed of non-reflective material that is sympathetic to the surroundings and finish of the existing dwelling on the development site.

## 6.0 OTHER STANDARDS

- 6.1.1 Outbuildings are not to be constructed before a house is built on the development site, unless Council grants development approval.
- 6.1.2 The use of second-hand materials will only be permitted where the materials are in good condition and are sympathetic to the surroundings and finish of the existing dwelling on the development site. The Shire may require a structural engineer report for use of second-hand materials.
- 6.1.3 Outbuildings within bushfire prone areas should be located in cleared areas. Where required, outbuildings are to be constructed in accordance with *Australian Standard AS 3959* construction standards.
- 6.1.4 Outbuildings that do not comply with the maximum development requirements will not be supported unless detailed justification can be provided for proposed variations.



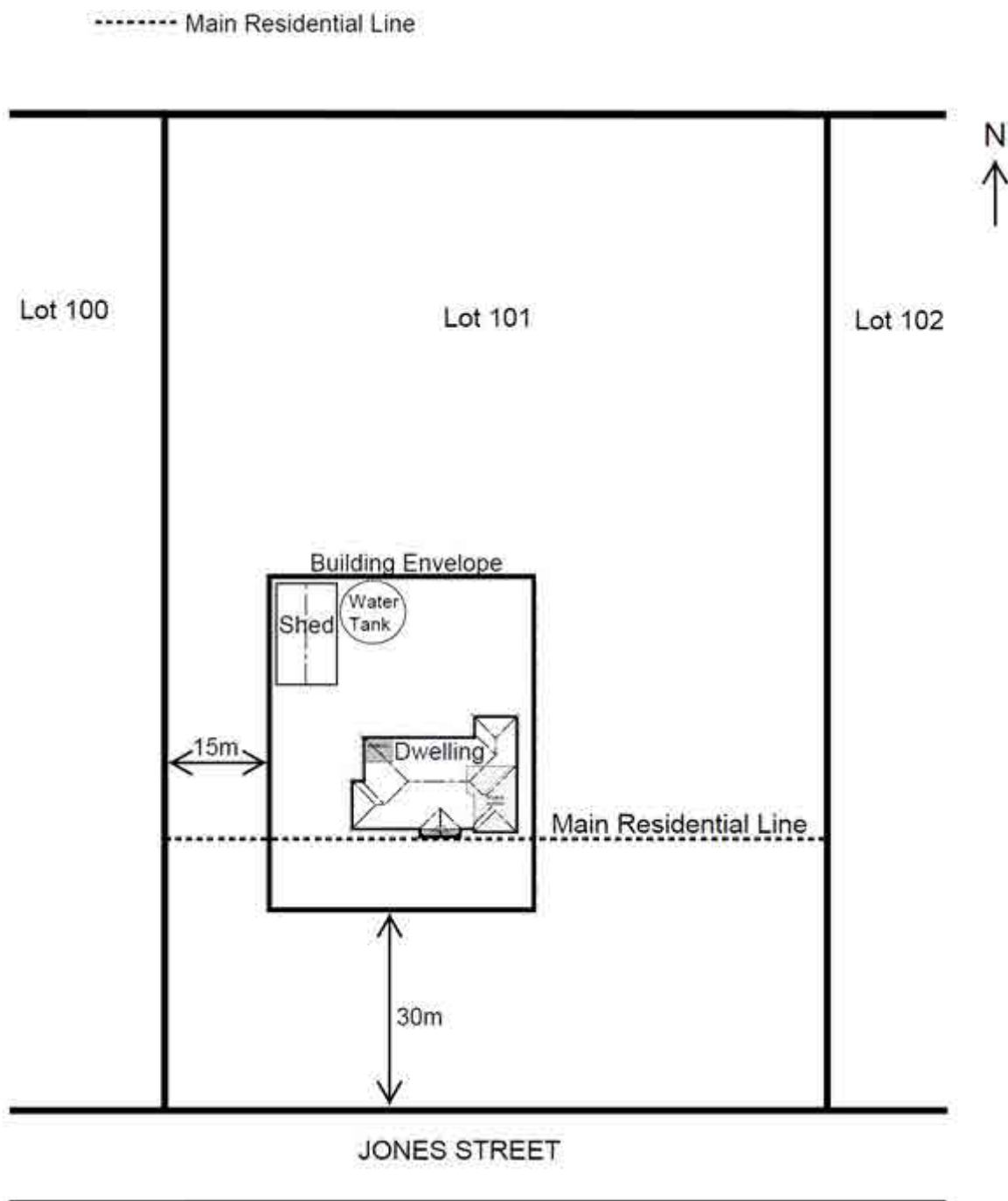
## 7.0 USE OF OUTBUILDINGS

- 7.1.1 Outbuildings shall only be used for incidental uses associated with a residential use and/or rural purpose.
- 7.1.2 The use of an outbuilding for human habitation is not permitted.
- 7.1.3 The Shire may grant approval for the use of an outbuilding to accommodate a caravan for the purposes of temporary accommodation for a period not exceeding twelve (12) months, where a building permit has been approved and work has substantially commenced.

## 8.o ADVERTISING

- 8.1.1 Variations to the acceptable standards will be referred to affected surrounding landowners for comment, in accordance with *Clause 64* of Schedule 2 of the deemed provisions. Where a submission is received objecting to a proposal the application may be referred to Council for consideration.

## Schedule 1: Main Residential Line



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Office hours: Monday to Friday  
8.30am - 4.30pm



**SHIRE OF CHITTERING**

**TOWN PLANNING SCHEME NO. 6**

**Local Planning Policy  
No. 7**

**OUTBUILDINGS AND SWIMMING POOLS**

12 AUG 2008

*Planning*  
*18/06/0007.*

*E081441.*

**SHIRE OF CHITTERING  
LOCAL PLANNING POLICY No. 7  
OUTBUILDINGS AND SWIMMING POOLS**

**1. STATUTORY CONTEXT**

The Shire of Chittering, as enabled under Part 2 of Town Planning Scheme (TPS) No. 6, hereby makes this Local Planning Policy (LPP) regarding Outbuildings and Swimming Pools throughout the Shire of Chittering.

Any LPP prepared under this part shall be consistent with the Scheme and if any inconsistency arises the Scheme shall prevail.

An LPP is not part of the Scheme and shall not bind the Local Government in any respect of any application for Planning Approval but the Local Government shall have due regard to the provisions of any Policy and the objectives which the Policy is designed to achieve before making its decision.

This policy applies to all land zoned within the Shire of Chittering and supersedes Local Planning Policy No. 7, Outbuildings, adopted 18/07/2002. It does not apply to Tunnel Houses, which are the subject of LPP No. 9, nor to Sea Containers, which are the subject of LPP No. 29.

**2. DEFINITIONS**

The following are definitions that relate directly to the application of this policy:

*"Building Clearing Area"* means the area within a defined building envelope that may be cleared for the purposes of erecting a dwelling, outbuildings and management of vegetation for gardens, car parking, driveways and fire hazard reduction (TPS No.6).

*"Building Setback Area"* means the area of any lot between the property boundary and the building setback line, measured at right angles (90 degrees) to the boundary (Residential Design Codes).

*"Council"* means the Council of the Shire of Chittering (Local Government Act 1995).

*"Lot"* has the same meaning as in the Planning and Development Act 2005, but does not include a strata or survey strata lot (TPS No. 6).

*"Outbuilding"* means an enclosed non-habitable structure that is required to meet the standards of the Building Code of Australia and is detached from any dwelling or other building, but does not include a water tank or animal feed bin.

**3. BACKGROUND**

The reasons why landowners need outbuildings are many and varied. They are part of the rural scene and reflect the uses to which landowners use and enjoy their land. In the Agricultural Resource Zones the storage of machinery, produce, fertilizers and on-site workshops are commonplace and are an acceptable part of the rural lifestyle. Outbuildings in the broader rural areas also include poultry farms and rural industries permitted under the Scheme.

In Rural Residential Zones, some landholders use sheds or covered areas for rural pursuits, such as stabling for horses and growing or storing produce, accommodating uses that cannot be normally enjoyed in urban areas due to the limitations on lot size.

Larger outbuildings may also provide an opportunity for additional rainwater capture in locations where there is no scheme water provision.

In urban areas, outbuildings can be used for storage of various kinds, including vehicles and boats and as hobby workshops. Here there is the potential loss of amenity in the smaller lot subdivisions. In both rural and urban areas, there may be the impact of building mass on the landscape. In this regard the objectives of each zone or landform, the use of the land and the living environment are important considerations when dealing with applications.

In the Residential Design Codes, which apply within the Muchea, Bindoon and Wannamal Townsites, outbuildings are controlled so they do not detract from the streetscape or the visual amenity of residents or neighbouring properties. In this case, they are not to exceed 60m<sup>2</sup> in area or 10 per cent of the site area, whichever is the lesser and there are also maximum wall and ridge heights specified.

TPS No. 6 makes the following references to outbuildings:

**5.8 Development Provisions – Rural Residential Zone, Rural Retreat Zone and Small Rural Holding Zone**

*The following general clauses will apply to the development and use of land in these rural zones.*

**5.8.8 Protection of Vegetation and Tree Cover**

*Areas of Vegetation Protection identified on the adopted Development Plan using Clause 5.8.1 of the Scheme shall not be cleared, felled or removed except where necessary in the following situations:*

- (c) the clearing is for the purpose of access to an approved dwelling or outbuildings;*
- (e) the clearing is necessary for the construction of a dwelling, outbuildings and an area of 20m width surrounding the dwelling for the purpose of bush fire protection.*

**6.2 Landscape Protection Areas**

**6.2.4 Planning Requirements**

*In dealing with an application for Planning Approval, the Local Government will not support:*

- (a) a dwelling or outbuilding on any ridgeline as may be prominently visible from any public road or which may adversely affect the aspects of neighbouring dwellings;*

**6.3 Water Prone Area – Ellen Brook Palusplain**

**6.3.3 Planning Requirements**

*The Local Government will impose conditions on any Planning Approval relating to-*

- (a) the construction and occupation of any dwelling or outbuilding;*

**8.2 Exempted Development**

*Except as otherwise provided in the Scheme, for the purposes of the Scheme the following development does not require the Planning Approval of Local Government-*

- (b) *the erection on a lot of a single house including any extension, ancillary outbuildings and swimming pools, except where -*
- (i) *the proposal requires the exercise of a discretion by the Local Government under the Scheme to vary the provisions of the Residential Planning Codes; or*
  - (ii) *the development will be located in a heritage area designated under the Scheme;*
  - (iii) *the proposal is located within a Rural Residential zone;*
  - (iv) *the proposal is located within Special Control Area;*
  - (v) *the proposal requires access from a un-constructed road;*
  - (vi) *the development utilises transported and transportable buildings.*

This policy has been created to provide guidance for Council, land owners and developers in satisfying the outbuilding requirements of TPS No. 6.

#### **4. OBJECTIVES**

The objectives of this policy are:

*To allow appropriate outbuildings with the minimum of administrative requirements;*

*To protect the natural vegetation, water quality and landscape amenity of the Shire;*

*To maintain the rural character of the Shire.*

#### **5. POLICY STATEMENT**

##### **5.1 Exemptions from Planning Consent Requirements**

Planning consent is not required for:

- a) above-ground swimming pools, provided they are located:
  - i) within any building clearing area specified for the lot; and
  - ii) outside strategic fire breaks (see also Local Planning Policy No. 21);
- b) below-ground swimming pools and outbuildings constructed of Colorbond or other non-reflective materials, with an area of 10m<sup>2</sup> or less, provided they are located:
  - i) within any building clearing area specified for the lot;
  - ii) outside setback areas (see also Local Planning Policy No. 18);
  - iii) outside strategic fire breaks (see also Local Planning Policy No. 21); and
  - iv) with a minimum setback of 30m from an existing water body or highest known flood level or drainage easement;
  - v) with a minimum setback of 10m from a drainage easement;
  - vi) behind any dwelling ie. not between a dwelling and the road frontage.

##### **5.2 Planning Consent Requirements for Outbuildings and In-ground Swimming Pools**

- a) Subject to Clause 5.3 below, planning consent is not required for outbuildings or in-ground swimming pools with an area greater than 10m<sup>2</sup> located in accordance with 5.1 b) i) to vi) unless:
  - (i) the proposal requires the exercise of a discretion by the Local Government under the Scheme to vary the provisions of the Residential Planning Codes;
  - (ii) the development will be located in a heritage area designated under the Scheme;

- (iii) the proposal is located within a Rural Residential zone;
  - (iv) the proposal is located within a Special Control Area;
  - (v) the proposal requires access from a un-constructed road; or
  - (vi) the development utilises transported and transportable buildings, in which case the application may be dealt with by the Chief Executive Officer under delegation issued by Council in accordance with Section 5.42 of the Local Government Act;
- b) Outbuildings appurtenant to a dwelling will not be approved on vacant Townsite or Rural Residential properties unless a simultaneous Building Licence Application for a dwelling has been lodged with the Local Government.
- c) The Local Government may exercise its discretion to vary the Residential Design Codes by approving outbuildings up to the maximum size of 150m<sup>2</sup>, irrespective of the Residential Design Codes density restrictions.
- d) All outbuildings are to be placed behind the main residential building line.
- e) Planning consent is not required for outbuildings not specified in part a) of this clause and otherwise in accordance with the Scheme and all Local Planning Policies.

*Note: If uncertain as to whether a planning consent is required, please contact the Shire's Planning Department.*

### **5.3 Building Licence Requirements for Outbuildings and Swimming Pools**

- a) All outbuildings and swimming pools, both above and in-ground, including those exempted from planning requirements, require a building licence;
- b) Sheds with a floor area greater than 100m<sup>2</sup> require an engineer's certificate to accompany the building licence application.

**ADOPTED FOR PRELIMINARY APPROVAL** by resolution of the **Shire of Chittering** at the Ordinary Meeting of the Council held on the 21<sup>st</sup> day of May 2008.

**ADOPTED FOR FINAL APPROVAL** by resolution of the **Shire of Chittering** at the Ordinary Meeting of the Council held on the 16<sup>th</sup> day of July 2008.

and the seal of the Municipality was pursuant to that resolution hereunto affixed in the presence of:

PRESIDENT...

CHIEF EXECUTIVE OFFICER

Date:

11/8/2008



**SHIRE OF CHITTERING**

**WASTE LOCAL LAW 2016**

**Waste Avoidance and Resource Recovery Act 2007**

**WASTE AVOIDANCE AND RESOURCE RECOVERY ACT 2007****LOCAL GOVERNMENT ACT 1995****WASTE LOCAL LAW 2016****CONTENTS****PART 1 – PRELIMINARY**

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**SCHEDULE 2 – PRESCRIBED OFFENCES**

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**WASTE AVOIDANCE AND RESOURCE RECOVERY ACT 2007  
LOCAL GOVERNMENT ACT 1995**

**SHIRE OF CHITTERING**

**WASTE LOCAL LAW 2016**

Under the powers conferred on it by the *Waste Avoidance and Resource Recovery Act 2007* and the *Local Government Act 1995* and under all other enabling powers, the Council of the Shire of Chittering resolved on [insert date] to make the following local law.

**PART 1 – PRELIMINARY**

**1.1 Short title**

This is the Shire of Chittering Waste Local Law 2016.

**1.2 Commencement**

This local law commences 14 days after the day on which it is published in the *Government Gazette*.

**1.3 Application**

This local law applies throughout the district.

**1.4 Repeal**

The *Shire of Chittering Health Local Laws 1998 Part 4 – Division 2*, published in the *Government Gazette* on 29 June 1998, is repealed.

**1.5 Meaning of terms used in this local law**

(1) In this local law—

**authorised person** means a person appointed by the local government under section 9.10 of the LG Act to perform any of the functions of an authorised person under this local law;

**collectable waste** means local government waste that is not—

- (a) liquid refuse;
- (b) liquid waste; or
- (c) non-collectable waste;

**collectable waste receptacle** means a receptacle for the deposit and collection of collectable waste that is—

- (a) a recycling waste receptacle;
- (b) a general waste receptacle; or
- (c) an organic waste receptacle;

**collection**, when used in relation to a receptacle, means the collection and removal of collectable waste from the receptacle by the local government or its contractor;

**collection day** means the day determined by the local government for the collection of collectable waste in the district or a part of the district;

**collection time** means the time on the collection day determined by the local government for the collection of collectable waste in the district or a part of the district;

**commencement date** means the date on which this local law commences operation under clause 1.2;

**costs** of the local government include administrative costs;

**Council** means the council of the local government;

**district** means the district of the local government;

**general waste receptacle** means a receptacle for the deposit and collection of collectable waste that is not recycling waste;

**LG Act** means the *Local Government Act 1995*;

**LG Regulations** means the *Local Government (Functions and General) Regulations 1996*;

**local government** means the Shire of Chittering;

**local government waste** has the same meaning as in the WARR Act;

**non-collectable waste** has the meaning set out in Schedule 1;

**occupier** in relation to premises, means any or all of the following—

- (a) a person by whom or on whose behalf the premises are actually occupied; or
- (b) a person having the management or control of the premises;

**organic waste** means waste that decomposes readily, such as garden waste or food waste;

**organic waste receptacle** means a receptacle for the deposit and collection of organic waste ;

**owner** has the same meaning as in the LG Act;

**public place** includes a place to which the public ordinarily have access, whether or not by payment of a fee;

**receptacle**, means a receptacle—

- (a) that has been supplied for the use of the premises by the local government or its contractor, or which has otherwise been approved by the local government; and
- (b) the waste from which is collected and removed from the premises by the local government or its contractor;

**recycling waste receptacle** means a receptacle for the deposit and collection of recycling waste;

**recycling waste** means—

- (a) paper and cardboard;
- (b) plastic containers comprised of polyethylene terephthalate or high density polyethylene;
- (c) glass containers;
- (d) steel containers;
- (e) aluminium containers;
- (f) liquid paper board; and
- (g) any other waste determined by the local government to be recycling waste;

**specified** means specified by the local government or an authorised person, as the case may be;



**street alignment** means the boundary between the land comprising a street and the land that abuts the street;

**WARR Act** means the *Waste Avoidance and Resource Recovery Act 2007*;

**WARR Regulations** means the *Waste Avoidance and Resource Recovery Regulations 2008*;

**waste** has the same meaning as in the WARR Act;

**waste facility** means a waste facility, as defined in the WARR Act, that is operated by the local government; and

**waste service** has the same meaning as in the WARR Act.

- (2) Where, in this local law, a duty or liability is imposed on an owner or occupier, or on an owner and occupier, the duty or liability is taken to be imposed jointly and severally on each of the owners or occupiers.

## 1.6 Local public notice of determinations

Where, under this local law, the local government has a power to determine a matter –

- (a) local public notice, under section 1.7 of the LG Act, must be given of the matter determined;
- (b) the determination becomes effective only after local public notice has been given;
- (c) the determination remains in force for the period of one year after the date that local public notice has been given under paragraph (a);
- (d) after the period referred to in paragraph (c), the determination continues in force only if, and for so long as, it is the subject of local public notice, given annually, under section 1.7 of the LG Act; and
- (e) the determination must be recorded in a publicly accessible register of determinations that must be maintained by the local government.

## 1.7 Rates, fees and charges

The local government's powers to impose rates, fees and charges in relation to waste services are set out in sections 66 to 68 of the WARR Act and sections 6.16 and 6.17 of the LG Act.

## 1.8 Power to provide waste services

The local government's power to provide, or enter into a contract for the provision of, waste services is dealt with in section 50 of the WARR Act.

# PART 2 – LOCAL GOVERNMENT WASTE

## 2.1 Supply of receptacles

- (1) The local government is to supply, for the use of each premises that are, or are capable of being, occupied or used for residential purposes, one or more receptacles for the collection and removal, from those premises, of collectable waste.
- (2) The owner of premises to which subclause (1) applies must—
  - (a) ensure that the fee or charge (if any) imposed by the local government in relation to each receptacle is paid to the local government; and
  - (b) ensure that each receptacle is used, in respect of those premises, in accordance with this local law.

**2.2 Deposit of waste in receptacles**

- (1) An owner or occupier of premises must not deposit or permit to be deposited in a receptacle any non-collectable waste.
- (2) A person must not deposit waste in a receptacle that has been provided for the use of other premises without the consent of the owner or occupier of those premises.

**2.3 General waste receptacles**

- (1) An owner or occupier of premises must not deposit or permit to be deposited in a general waste receptacle—
  - (a) where the receptacle has a capacity of 240 litres—more than 70 kilograms of collectable waste; or
  - (b) where the receptacle has any other capacity—more than the weight determined by the local government.
- (2) Where the local government supplies recycling waste receptacles, an owner or occupier of premises must not deposit or permit to be deposited in a general waste receptacle any recycling waste.
- (3) Where the local government supplies organic waste receptacles, an owner or occupier of premises must not deposit or permit to be deposited in a general waste receptacle any organic waste.

**2.4 Recycling waste receptacles**

An owner or occupier of premises must not deposit or permit to be deposited in a recycling waste receptacle—

- (a) anything other than the particular type of recycling waste for which that receptacle was provided by the local government for those premises;
- (b) where the receptacle has a capacity of 240 litres— more than 70 kilograms of recycling waste; or
- (c) where the receptacle has any other capacity—more than the weight determined by the local government.

**2.5 Organic waste receptacles**

An owner or occupier of premises must not deposit or permit to be deposited in an organic waste receptacle—

- (a) anything other than the particular type of organic waste for which that receptacle was provided by the local government for those premises;
- (b) where the receptacle has a capacity of 240 litres - more than 70 kilograms of organic waste; or
- (c) where the receptacle has any other capacity - more than the weight determined by the local government.

**2.6 Direction to place or remove a receptacle**

- (1) The local government or an authorised person may give a written direction to an owner or occupier of specified premises —
  - (a) to place a receptacle in respect of those premises for collection; or
  - (b) to remove a receptacle in respect of those premises after collection.
- (2) The direction under subclause (1) may specify when the placement or removal is to occur, or where the receptacle is to be placed, or both.
- (3) An owner or occupier of premises must comply with a direction given under this clause.

**2.7 Duties of owner or occupier**

An owner or occupier of premises must—

- (a) except for a reasonable period before and after collection time, keep each receptacle in a storage space or area that is behind the street alignment;
- (b) take reasonable steps, if placing a receptacle for collection on the verge adjoining the premises, or other area as determined by the local government, ensure that, within a reasonable period before collection time, each receptacle is —
  - (i) within 1 metre of the carriageway;
  - (ii) so that it does not unduly obstruct any footpath, cycle way, right-of-way or carriageway; and
  - (iii) facing squarely to the edge of and opening towards the carriageway, or in such other position as is approved in writing by the local government or an authorised person;
- (c) take reasonable steps to ensure that the premises are provided with an adequate number of receptacles; and
- (d) if the receptacle is lost, stolen, damaged or defective, notify the local government, as soon as practicable, after the event.

**2.8 Exemption**

- (1) An owner or occupier of premises may apply in writing to the local government for an exemption from compliance with the requirements of clause 2.7(a) or (b).
- (2) The local government or an authorised person may grant, with or without conditions, or refuse an application for exemption from compliance under this clause.
- (3) An exemption granted under this clause must state—
  - (a) the premises to which the exemption applies;
  - (b) the period during which the exemption applies; and
  - (c) any conditions imposed by the local government or the authorised person.
- (4) An exemption granted under this clause ceases to apply —
  - (a) if the local government decides, on reasonable grounds, that there has been a failure to comply with a condition of the exemption; and
  - (b) from the date that the local government informs the owner or occupier of its decision under clause 2.8(4)(a).

**2.9 Damaging or removing receptacles**

A person, other than the local government or its contractor, must not—

- (a) damage, destroy or interfere with a receptacle; or
- (b) except as permitted by this local law or as authorised by the local government or an authorised person, remove a receptacle from any premises to which it was delivered by the local government or its contractor.

**2.10 Verge collections**

- (1) Where the local government has advertised a verge waste collection (such as a green waste, or a bulk waste, verge collection) a person, unless with and in accordance with the approval of the local government or an authorised person—
  - (a) must deposit waste only during the period of time, and in accordance with other terms and conditions, as advertised by the local government in relation to that verge waste collection; and
  - (b) must otherwise comply with those terms and conditions.
- (2) Where waste has been deposited on a verge for a verge waste collection, a person must not remove any of that waste for a commercial purpose but may remove it for any other purpose.

- (3) Except where waste is lawfully removed from a verge under this clause, a person must not disassemble or tamper with any waste deposited on a verge for a verge waste collection so as to increase the risk of harm to any person.
- (4) Clause 2.10(2) does not apply to the local government or a person engaged or contracted by the local government in relation to the verge waste collection.

### **PART 3 – GENERAL DUTIES**

#### **3.1 Duties of an owner or occupier**

An owner or occupier of premises must—

- (a) take reasonable steps to ensure that a sufficient number of receptacles are provided to contain all waste which accumulates or may accumulate in or from the premises;
- (b) ensure that each receptacle is kept in good condition and repair;
- (c) take all reasonable steps to—
  - (i) prevent fly breeding and keep each receptacle free of flies, maggots, cockroaches, rodents and other vectors of disease;
  - (ii) prevent the emission of offensive or noxious odours from each receptacle ; and
  - (iii) ensure that each receptacle does not cause a nuisance to an occupier of adjoining premises; and
- (d) whenever directed to do so by the local government or an authorised person, thoroughly clean, disinfect, deodorise and apply a residual insecticide to each receptacle .

#### **3.2 Removal of waste from premises**

- (1) A person must not remove any waste from premises unless that person is—
  - (a) the owner or occupier of the premises;
  - (b) authorised to do so by the owner or occupier of the premises; or
  - (c) authorised in writing to do so by the local government or an authorised person.
- (2) A person must not remove any waste from a receptacle without the approval of –
  - (a) the local government or an authorised person; or
  - (b) the owner or occupier of the premises at which the receptacle is ordinarily kept.

#### **3.3 Receptacles and containers for public use**

A person must not, without the approval of the local government or an authorised person—

- (a) deposit household, commercial or other waste from any premises on or into; or
- (b) remove any waste from,  
a receptacle provided for the use of the general public in a public place.

### **PART 4 – OPERATION OF WASTE FACILITIES**

#### **4.1 Operation of this Part**

This Part applies to a person who enters a waste facility.

#### **4.2 Hours of operation**

The local government may from time to time determine the hours of operation of a waste facility.

**4.3 Signs and directions**

- (1) The local government or an authorised person may regulate the use of a waste facility—
  - (a) by means of a sign; or
  - (b) by giving a direction to a person within a waste facility.
- (2) A person within a waste facility must comply with a sign or direction under subclause (1).
- (3) The local government or an authorised person may direct a person who commits, or is reasonably suspected by the local government or the authorised person of having committed, an offence under this clause to leave the waste facility immediately.
- (4) A person must comply with a direction under subclause (3).

**4.4 Fees and charges**

- (1) Unless subclause (3) applies, a person must, on or before entering a waste facility or on demand by the local government or an authorised person, pay the fee or charge as assessed by an authorised person.
- (2) An authorised person may assess the fee or charge in respect of a particular load of waste at a rate that applies to any part of that load, even if that rate is higher than the rate that would apply to any other part of the load.
- (3) Subclause (1) does not apply—
  - (a) to a person who disposes of waste in accordance with the terms of—
    - (i) a credit arrangement with the local government; or
    - (ii) any other arrangement with the local government to pay the fee or charge at a different time or in a different manner; and
  - (b) to the deposit of waste owned by the local government, or in the possession of an employee on behalf of the local government.

**4.5 Depositing waste**

- (1) A person must not deposit waste at a waste facility other than—
  - (a) at a location determined by a sign and in accordance with the sign; and
  - (b) in accordance with the direction of an authorised person.
- (2) The local government may determine the classification of any waste that may be deposited at a waste facility.

**4.6 Prohibited activities**

- (1) Unless authorised by the local government, a person must not—
  - (a) remove any waste or any other thing from a waste facility;
  - (b) deposit at a waste facility that is a landfill site any waste that is toxic, poisonous or hazardous, or the depositing of which is regulated or prohibited by any written law;
  - (c) light a fire in a waste facility;
  - (d) remove, damage or otherwise interfere with any flora in a waste facility;
  - (e) remove, injure or otherwise interfere with any fauna in a waste facility; or
  - (f) damage, deface or destroy any building, equipment, plant or property within a waste facility.
- (2) A person must not act in an abusive or threatening manner towards any person using, or engaged in the management or operation of, a waste facility.



**PART 5 – ENFORCEMENT****5.1 Offences and general penalty**

- (1) A person who fails to do anything required or directed to be done under this local law, or who does anything which under this local law a person is prohibited from doing, commits an offence.
- (2) A person who commits an offence under this local law is liable, on conviction, to a penalty not exceeding \$5,000, and if the offence is of a continuing nature, to a further penalty not exceeding \$500 in respect of each day or part of a day during which the offence has continued.

**5.2 Other costs and expenses**

- (1) A person who is convicted of an offence under this local law is to be liable, in addition to any penalty imposed under clause 5.1, to pay to the local government the costs and expenses incurred by the local government in taking remedial action such as—
  - (a) removing and lawfully disposing of toxic, hazardous or poisonous waste; or
  - (b) making good any damage caused to a waste facility.
- (2) The costs and expenses incurred by the local government are to be recoverable, as a debt due to the local government, in a court of competent civil jurisdiction.

**5.3 Prescribed offences**

- (1) An offence against a clause specified in Schedule 2 is a prescribed offence for the purposes of section 9.16(1) of the LG Act.
- (2) The amount of the modified penalty for a prescribed offence is that specified adjacent to the clause in Schedule 2.

**5.4 Form of notices**

- (1) Where a vehicle is involved in the commission of an offence, the form of the notice referred to in section 9.13 of the LG Act is that of Form 1 in Schedule 1 of the LG Regulations;
- (2) The form of the infringement notice given under section 9.16 of the LG Act is that of Form 2 in Schedule 1 of the LG Regulations; and
- (3) The form of the infringement withdrawal notice given under section 9.20 of the LG Act is that of Form 3 in Schedule 1 of the LG Regulations.

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### SCHEDULE 1 – MEANING OF ‘NON-COLLECTABLE WASTE’

**non-collectable waste** means –

- (a) hot or burning material;
- (b) household hazardous waste, including paint, acids, alkalis, fire extinguishers, solvents, pesticides, oils, gas cylinders, batteries, chemicals and heavy metals;
- (c) any other hazardous material, such as radioactive waste;
- (d) any explosive material, such as flares or ammunition;
- (e) electrical and electronic equipment;
- (f) hospital, medical, veterinary, laboratory or pathological substances;
- (g) construction or demolition waste;
- (h) sewage;
- (i) non-frangible metal;
- (j) ‘controlled waste’ for the purposes of the *Environmental Protection (Controlled Waste) Regulations 2004*;
- (k) any object that is greater in length, width, or breadth than the corresponding dimension of the receptacle or that will not allow the lid of the receptacle to be tightly closed;
- (l) waste that is or is likely to become offensive or a nuisance, or give off an offensive or noxious odour, or to attract flies or cause fly breeding unless it is first wrapped in non-absorbent or impervious material or placed in a sealed impervious and leak-proof container; and
- (m) any other waste determined by the local government to be non-collectable waste.

## SCHEDULE 2 – PRESCRIBED OFFENCES

Item No.	Clause No.	Description	Modified Penalty
1	2.1(2)(a)	Failing to pay fee or charge	\$350
2	2.1(2)(b)	Failing to ensure lawful use of receptacle	\$350
3	2.2(1)	Depositing non-collectable waste in a receptacle	\$350
4	2.2(2)	Depositing waste in another receptacle without consent	\$350
5	2.3(1)	Exceeding weight capacity of a general waste receptacle	\$350
6	2.3(2) and (3)	Depositing unauthorised waste in a general waste receptacle	\$350
7	2.4(a)	Depositing unauthorised waste in a recycling waste receptacle	\$350
8	2.4(b) and (c)	Exceeding weight capacity of a recycling waste receptacle	\$250
9	2.5(a)	Depositing unauthorized waste in an organic waste receptacle	\$350
10	2.5(b) and (c)	Exceeding weight capacity of an organic waste receptacle	\$350
11	2.6(3)	Failing to comply with a direction concerning placement or removal of a receptacle	\$250
12	2.7(a)	Failing to keep a receptacle in the required location	\$250
13	2.7(b)	Failing to place a receptacle for collection in a lawful position	\$250
14	2.7(c)	Failing to provide a sufficient number of receptacles	\$250
15	2.7(d)	Failing to notify of a lost, stolen, damaged or defective receptacle	\$50
16	2.9(a)	Damaging, destroying or interfering with a receptacle	\$400
17	2.9(b)	Removing a receptacle from premises	\$400
18	2.10(1)	Failing to comply with a term or condition of verge waste collection	\$400
19	2.10(2)	Removing waste for commercial purposes	\$350
20	2.10(3)	Disassembling or leaving in disarray waste deposited for collection	\$250
21	3.1(a)	Failing to provide a sufficient number of receptacles	\$250
22	3.1(b)	Failing to keep a receptacle clean and in a good condition and repair	\$250
23	3.1(c)(i)	Failing to prevent fly breeding and vectors of disease in a receptacle	\$350
24	3.1(c)(ii)	Failing to prevent the emission of offensive odours from a receptacle	\$350
25	3.1(c)(iii)	Allowing a receptacle to cause a nuisance	\$350
26	3.1(d)	Failing to comply with a direction to clean, disinfect or deodorise receptacle	\$300
27	3.2(1)	Unauthorised removal of waste from premises	\$250
28	3.2(2)	Removing waste from a receptacle without approval	\$250

Item No.	Clause No.	Description	Modified Penalty
29	4.3(2)	Failing to comply with a sign or direction	\$500
30	4.3(4)	Failing to comply with a direction to leave	\$500
31	4.4(1)	Disposing waste without payment of fee or charge	\$500
32	4.5(1)	Depositing waste contrary to sign or direction	\$500
33	4.6(1)(a)	Removing waste without authority	\$250
34	4.6(1)(b)	Depositing toxic, poisonous or hazardous waste	\$500
35	4.6(1)(c)	Lighting a fire	\$300
36	4.6(1)(d)	Removing or interfering with any flora	\$300
37	4.6(1)(e)	Interfering with any fauna without approval	\$300
38	4.6(1)(f)	Damaging, defacing or destroying any building, equipment, plant or property within a waste facility	\$500
39	4.6(2)	Acting in an abusive or threatening manner	\$300

**SHIRE OF CHITTERING**  
**HEALTH LOCAL LAW 2016**  
**Health Act 1911**



**HEALTH ACT 1911**

**LOCAL GOVERNMENT ACT 1995**

**HEALTH LOCAL LAW 2016**

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**Health Act 1911  
Local Government Act 1995**

**Shire of Chittering**

**HEALTH LOCAL LAW 2016**

Under the powers conferred by the *Health Act 1911*, the *Local Government Act 1995* and under all powers enabling it, the Council of the Shire of Chittering resolved on **(insert date)** to make the following local law:

**PART 1—PRELIMINARY**

**1.1 Title**

This local law may be cited as the *Shire of Chittering Health Local Law 2016*.

**1.2 Commencement**

This local law commences on the 14th day after the day on which it is published in the *Government Gazette*.

**1.3 Application**

This local law applies throughout the entire district.

**1.4 Repeal**

The *Shire of Chittering Health Local Laws 1998* published in the *Government Gazette* on the 29 June 1998 are repealed.

**1.5 Interpretation**

(1) In this local law, unless the context otherwise requires—

**Act** means the *Health Act 1911*;

**adequate** means satisfactory or fit for purpose or, if there is any doubt, at the discretion of the Principal Environmental Health Officer;

**adequate supply of water** means a flow of water of not less than 5 litres per minute;

**approved** means approved by the local government;

**AS or AS/NZS** means Australian Standard or Australian/New Zealand Standard published by Standards Australia and in this local law includes:

- (a) AS 3786:2014 Smoke alarms using scattered light, transmitted light or ionization;
- (b) AS 2293.1:2005 Emergency escape lighting and exit signs for buildings – System design, installation and operation;
- (c) AS 1530.2:1993 Methods for fire tests on building materials, components and structures - Test for flammability of materials;
- (d) AS 1530.3:1999 Methods for fire tests on building materials, components and structures – Simultaneous determination of ignitability, flame propagation, heat

- release and smoke release;
- (e) AS 2001.5.4:2005 Methods of test for textiles – Dimensional change – Domestic washing and drying procedures for textile testing (ISO 6330:2000, MOD);
  - (f) AS/NZS ISO 717.1:2004 Acoustics - Rating of sound insulation in buildings and of building elements - Airborne sound insulation;
  - (g) AS 3666.2: 2011 Air-handling and water systems of buildings - Microbial control - Design, installation and commissioning;
  - (h) AS 1668.2: 2012 The use of ventilation and air conditioning in buildings - Mechanical ventilation in building;

**bed** means a piece of furniture on which to sleep.

**bedding** includes beds, mattresses, pillows and bed heads as well as bed linen;

**bed linen** includes sheets, blankets, pillow cases, quilt and doona covers and mattress covers;

**Building Code** means the latest edition of the Building Code of Australia published from time to time by or on behalf of the Australian Building Codes Board, as amended from time to time, but not including explanatory information published with that Code;

**Chief Executive Officer** means the Chief Executive Officer of the local government and includes an Acting Chief Executive Officer;

**Council** means the Council of the local government;

**district** means

- (a) the district of the local government under the *Local Government Act 1995*
- (b) any area placed under the jurisdiction of the local government under section 22 of the Act; and
- (c) any river, or other water deemed to be within the district of the local government under section 25 of the Act;

**dwelling house** means a place of residence containing at least one sleeping room and includes a room or outbuilding separate from, but ancillary to, the building in which the sleeping room is located;

**Environmental Health Officer** means an Environmental Health Officer appointed by the local government under the Act and includes an Acting or Assistant Environmental Health Officer and Principal Environmental Health Officer;

**habitable room** means a room used for normal domestic activities, and

- (a) includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, play-room, family room and sun-room or the like; but
- (b) excludes a bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, lobby, photographic dark room, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods;

**hot water** means water at a temperature of at least 65 degrees Celsius;

**local government** means the Shire of Chittering;

**Medical Officer** means the Medical Officer appointed by the local government under the Act and includes an Acting Medical Officer so appointed;

**morgue** means a place for the temporary reception and keeping of the bodies of the dead awaiting burial or cremation;

**nuisance** has the meaning given to it in section 182 of the Act;

**public place** includes every place to which the public ordinarily have access, whether by

payment of a fee or not;

**sanitary convenience** includes urinals, toilets, sinks, baths, wash troughs, apparatus for the treatment of sewage, or other receptacle for the deposit of faecal matter, or refuse, and all similar conveniences;

**sewage** means any kind of sewage, faecal matter or urine, and any waste composed wholly or in part of liquid;

**sewer** includes sewers and drains of every description, except drains to which the word “drain” as defined in the Act applies, also water channels constructed of stone, brick, concrete, or any other material, including the property of the local government;

**street** includes any highway, and any public bridge, and any road, lane, footway, square, court, alley or passage, whether a thoroughfare or not;

**toilet** means a toilet bowl, or urinal and includes a room or cubicle in which one or more of these are located;

**townsite** means the townsites within the district which are constituted under section 26(2) of the *Land Administration Act 1997* or referred to in clause 37 of the Schedule 9.3 of the *Local Government Act 1995*;

**urinal** may be –

- (a) an individual stall or wall-hung urinal; or
- (b) each 600 mm length of a continuous urinal trough; or
- (c) a toilet bowl used in place of a urinal.

**water** means drinking water within the meaning of the *Guidelines for Drinking Water Quality in Australia* published by the National Health and Medical Research Council and as amended from time to time.

- (2) Where in this local law, a duty or liability is imposed on an “owner or occupier”, the duty or liability shall be deemed to be imposed jointly and severally on each of the owner or occupier.
- (3) Where under this local law an act is required to be done or forbidden to be done in relation to any premises, the owner or occupier of those premises has, unless the contrary intention appears, the duty of causing to be done the act so required to be done, or of preventing from being done the act so forbidden to be done, as the case may be.

## PART 2 – SANITATION

### *Division 1 – Sanitary Conveniences*

#### 2.1 Interpretation

In this Part, unless the context otherwise requires—

**event** includes a fair, function or festival;

**organiser** means a person—

- (a) to whom approval has been granted by the local government to conduct the event; or
- (b) responsible for the conduct of the event;

**public sanitary conveniences** means a sanitary convenience to which the public ordinarily have access, and

**temporary sanitary convenience** means a sanitary convenience, temporarily placed for use



by—

- (a) patrons in conjunction with an event ; or
- (b) employees at construction sites or the like.

## 2.2 Dwelling house

- (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house unless it has at least one toilet.
- (2) A room in which a toilet is located shall have adequate electrical lighting.

## 2.3 Premises other than a dwelling house

- (1) The owner of premises other than a dwelling house shall not use or occupy, or permit to be used or occupied, premises other than a dwelling house unless—
  - (a) the premises have sanitary conveniences in accordance with the Building Code and this Part;
  - (b) the toilets required by this clause are situated within a reasonable distance and are easily accessible to the persons for whom they are provided; and
  - (c) the premises have hand wash basins –
    - (i) in accordance with the Building Code;
    - (ii) for the use of persons employed or engaged on the premises;
    - (iii) provided with an adequate supply of water supplied by taps located over each basin;
    - (iv) separate from any trough, sink or basin used in connection with any process carried out on the premises; and
    - (v) situated within a reasonable distance of the sanitary conveniences and easily accessible to the person for whom they are provided.
- (2) The occupier of the premises other than a dwelling house shall ensure that—
  - (a) clean toilet paper is available at all times in each cubicle;
  - (b) a sanitary napkin disposal facility is provided in each toilet set aside for the use of females; and
  - (c) each hand wash basin is provided with—
    - (d) an adequate supply of soap or other hand cleaning substances; and
    - (e) hand-drying facilities, situated adjacent to and visible from the hand basin.

## 2.4 Events

The organiser of an outdoor event must provide sanitary conveniences in accordance with the recommendations contained within the Department of Health's *'Guidelines for concerts, events and organized gatherings'*.

## 2.5 Toilets

- (1) Toilets on premises shall be maintained in accordance with the following requirements –
  - (a) the door to a toilet, other than an internal toilet, shall be properly screened to a continuous height of 1.8 metres from the floor;
  - (b) a toilet or its entrance which is visible from overlooking windows shall be properly screened;
  - (c) the floor of any internal toilet shall be –
    - (i) of concrete or of other approved impervious material of an approved thickness; and

- (ii) graded to a floor waste outlet and proper discharge pipe with flap valve fitted and, where necessary, protected by an approved sump; and
- (d) the floor of any external toilet shall be—
  - (i) of concrete or of other approved impervious material of an approved thickness and
  - (ii) graded to the door or alternatively an approved outlet.
- (2) Toilets on premises other than a dwelling house shall be maintained in accordance with the following additional requirements—
  - (a) a toilet for the exclusive use of males shall not adjoin any toilet for the exclusive use of females unless the toilets are separated by a wall extending from floor to ceiling and of sufficient density to have a sound transmission class of not less than 50 as required by AS/NZS ISO 717.1:2004; and
  - (b) where more than one toilet is provided on the premises, the entrance to each toilet shall bear a suitable sign indicating for which sex its use is intended.

## 2.6 Temporary works

A person who undertakes temporary work at any place shall ensure every temporary sanitary convenience is installed and maintained in accordance with the requirements of the *Health (Temporary Sanitary Conveniences) Regulations 1997*.

## 2.7 Maintenance of sanitary conveniences and fittings

- (1) The occupier of premises shall –
  - (a) keep clean, in good condition and repair; and
  - (b) whenever required by an Environmental Health Officer, effectively disinfect and clean, all sanitary conveniences including sanitary fittings in or on the premises.
- (2) The owner of premises shall –
  - (a) keep or cause to be kept in good repair, and;
  - (b) maintain an adequate supply of water to all sanitary conveniences including sanitary fittings in or on the premises.

## 2.8 Ventilation of toilets

- (1) A toilet in any premises shall be ventilated in accordance with the *Sewerage (Lighting, Ventilation and Construction) Regulations 1971* and the Building Code.
- (2) A mechanical ventilation system provided under subclause (1) shall be maintained in good working order and condition.

## 2.9 Public sanitary conveniences

- (1) A person shall not—
  - (a) foul;
  - (b) damage or vandalise; or
  - (c) write on or otherwise deface, a public sanitary convenience or sanitary fixtures or fittings or the premises in or on which the sanitary convenience is located.
- (2) A person shall not live or sleep in or on the premises in which a public sanitary convenience is located or use it for a purpose other than that for which it was intended.

## 2.10 Lighting

The owner and occupier of premises in which a sanitary convenience or a public sanitary convenience is located shall provide and maintain adequate electric lighting for persons using the convenience.

### 2.11 Installation

Every sanitary convenience shall be installed in accordance with the requirements of *Country Areas Water Supply Act 1947*, the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Wastes) Regulations 1974* and the *Water Services Act 2012* and shall have an adequate supply of water.

#### *Division 2 – Bathrooms, Laundries and Kitchens*

### 2.12 Bathrooms

- (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house without a bathroom that—
  - (a) is adequately lined with an impervious material and has a ceiling that complies with the Building Code;
  - (b) complies with the *Health Act (Laundries and Bathrooms) Regulations* and the Building Code;
  - (c) is equipped with—
    - (i) a hand wash basin; and
    - (ii) either a shower in a shower recess or a bath.
- (2) All baths, showers, hand wash basins and similar fittings shall be provided with an adequate supply of hot and cold water.

### 2.13 Laundries

- (1) A laundry must comply with the requirements of the *Health Act (Laundry and Bathroom) Regulations* and the Building Code.
- (2) Where, in any building, a laundry is situated adjacent to a kitchen or a room where food is stored or consumed, the laundry shall be separated from the kitchen by a wall extending from the floor to the roof or ceiling.
- (3) Where there is an opening between a laundry and a kitchen or other room where food is stored or consumed, the opening shall—
  - (a) not be more than 1,220 millimetres wide; and
  - (b) have a door which when closed shall completely fill the opening.

### 2.14 Washing or keeping of clothes in kitchens

A person shall not in any kitchen or other place where food is kept—

- (a) wash or permit to be washed any clothing or bed linen; or
- (b) keep or permit to be kept any soiled clothing or bed linen.

### 2.15 Kitchens

- (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house without a kitchen which complies with the requirements of the Building Code and which is equipped with—
  - (a) a cooking facility which is adequate in the opinion of an Environmental Health Officer; and

- (b) a sink which is adequate in the opinion of an Environmental Health Officer and which has an adequate supply of hot and cold water.
- (2) The occupier of a dwelling house shall ensure that the stove, oven and sink are kept clean, in good order and repair and fit for use.
- (3) A cooking facility shall—
  - (a) be installed in accordance with the requirements of Energy Safety WA and the Manufacturer's Specifications; and
  - (b) not be installed or used in any room other than a kitchen.
- (4) Mechanical extraction shall be provided in a kitchen and the exhaust air shall be—
  - (a) carried to the outside air as directly as practicable; and
  - (b) boxed throughout.
- (5) In this clause, a "cooking facility" includes a stove, oven, facility or appliance used for or in connection with the cooking of food.

### **PART 3 – HOUSING AND GENERAL**

#### *Division 1 – Maintenance of Dwelling Houses*

##### **3.1 Dwelling house maintenance**

The owner or occupier of a dwelling house shall maintain the dwelling house and any appurtenant buildings in sound condition and fit for use and, in particular, shall—

- (a) maintain all roofs in sound weatherproof condition;
- (b) maintain any footings, foundations and walls, either external or internal, in a sound condition;
- (c) replace any missing, broken, decayed or termite-eaten timber or other deteriorated material in any veranda, roof, walls, steps, handrails, floors or their supports with material of sound quality;
- (d) comply with the directions of an Environmental Health Officer to treat the premises for the purpose of destroying any termites;
- (e) maintain any brick, stone, mortar or cement work in a sound condition;
- (f) maintain, repair or replace any flashings or ant caps which are missing or defective;
- (g) maintain all floors even in surface and free from cracks;
- (h) maintain all ceilings, internal wall finishes, skirting boards, architraves and other fixtures and fittings complete and with smooth unbroken surfaces;
- (i) maintain all doors and windows in good working order and weatherproof condition;
- (j) retain all natural lighting free from any obstruction which would reduce the natural lighting, below the ratio of 10% of the floor area;
- (k) maintain all pipes, fittings and fixtures connected with water supply, drainage or sewerage so that they comply in all respects with the provisions of the *Water Services Act 2012*, the Plumbing Code of Australia and relevant associated standards, and any other legal requirements to which they are subject;
- (l) maintain all electric wiring, gas services and fittings to comply with the requirements of all relevant public authorities; and
- (m) maintain all ventilators in good order and repair.

##### **3.2 Guttering and downpipes**

The owner or occupier of a dwelling house which has guttering and downpipes shall —

- (a) maintain all guttering, downpipes and drains on the premises in a good state of repair, clean

- and free from obstruction; and
- (b) not permit any rainwater from the premises to discharge onto or over a footpath, street or other property.

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### 3.3 Disposal of rainwater

The owner or occupier of a house shall not use or occupy or permit to be used or occupied, a house unless all rainwater is effectively disposed of or collected in an approved manner that will not be a nuisance or injurious or dangerous to health of any person.

#### *Division 2 – Ventilation of Dwelling Houses*

### 3.4 Exemption for short term hostels and recreational campsites

This division shall not apply to short term hostels and recreational campsites referred to in Division 2 of Part 8.

### 3.5 Overcrowding

The owner or occupier of a dwelling house shall not permit—

- (a) a room in the dwelling house that is not a habitable room to be used for sleeping purposes; or
- (b) a habitable room in the dwelling house to be used for sleeping purposes unless—
  - (i) for every person over the age of 10 years using the room there is at least 14 cubic metres of air space per person; and
  - (ii) for every person between the ages of 1 and 10 years there is at least 8 cubic metres of air space per person; or
- (c) any garage, shed or area under a veranda or patio to be used for sleeping purposes.

### 3.6 Calculated sufficient space

For the purpose of clause 3.5, in calculating the space required for each person—

- (a) each room shall be considered separately and sufficient space shall be allowed in each room for the number of persons present in the room at any one time; and
- (b) deduction shall be made for the space occupied by furniture, beds, equipment, fittings and projections of the walls into a room.

### 3.7 Ventilation

- (1) A person shall not use or occupy, or permit to be used or occupied, a house unless the house is properly ventilated.
- (2) For the purpose of subclause (1) a house shall be deemed to be properly ventilated if it complies with the Building Code, including the provision of—
  - (a) natural ventilation; or
  - (b) a mechanical ventilation or air-conditioning system complying with AS1668.2.
- (3) The owner of a house provided with a mechanical ventilation or air-conditioning system as its only or prime means of ventilation shall ensure that the system is—
  - (a) maintained in good working condition and in accordance with AS3666; and
  - (b) in use at all times the building is occupied.
- (4) If, in the opinion of an Environmental Health Officer, a house is not properly ventilated, the Environmental Health Officer may by notice require the owner of the house to—
  - (a) provide a different, or additional method of ventilation; or
  - (b) cease using the house until it is properly ventilated.

### 3.8 Sub-floor ventilation

The owner or occupier of a dwelling house shall make provision for sub-floor ventilation by ensuring that air bricks and other openings are kept clear of refuse, vegetation, building materials, dirt and the like.

#### *Division 3 – Water Supply*

### 3.9 Water supply

- (1) The owner of every dwelling house shall provide a continuous supply of drinking water obtained from—
  - (a) a licensed water service operator;
  - (b) an underground bore; or
  - (c) a rainwater storage system with a minimum capacity of 120,000 litres; and
  - (d) such supply shall be reticulated for use.
- (2) The water supply shall at all times deliver an adequate supply of drinking water to each tap in the house.
- (3) The water supply to toilets or for garden use may be from an alternative source that is not necessarily drinking water but must comply with the requirements of relevant legislation, codes of practice or guidelines where applicable.

### 3.10 Rain water tanks

The owner or occupier of a dwelling house for which the water supply is drawn from a rain water tank shall ensure that it is managed and maintained to so as to meet the relevant standards in the National Health and Medical Research Council Drinking Water Guidelines and in particular —

- (a) maintain in a clean condition—
- (b) the roof forming the catchment for the tank; and
- (c) the guttering and downpipes appurtenant to the roof;
- (d) ensure that each rain water tank is fitted with a tight-fitting mosquito proof cover which shall not be removed at any time except for the purpose of inspecting, cleaning, repairing or maintaining the tank;
- (e) if the tank water is breeding mosquitoes, eliminate the point of entry and treat with a small quantity of liquid paraffin at a rate of not more than 5 millilitres per square meter of surface area so as to form a thin even film over the whole surface or otherwise as advised by an Environmental Health Officer;
- (f) inspect the rainwater tank and associated components at least every six months including gutters, catchment roof, tank inlet, debris traps, mosquito cowls, inside of the tank, tank roof and connecting pipework and remove any accumulated debris, leaf material or other contaminants evident and repair any damaged components;
- (g) at least once every two years, inspect the bottom and walls of the tank for accumulated sediments, sludge and slime and where necessary thoroughly clean any tank which contains water used for human consumption;
- (h) when directed by an Environmental Health Officer, empty, clean and disinfect any tank upon the premises which contains water used for human consumption; and
- (i) dispose of any organic material and water from cleaning and desludging operations around the garden or yard ensuring that it is retained on site and does not cause a health nuisance.

### 3.11 Bores and wells

The owner or occupier of any premises shall not use or permit for human consumption the use of water from any bore or well unless the bore or well is—

- (a) at least 30 metres from any soak well, leach drain or irrigation area where effluent has been discharged from any wastewater treatment system or any other possible source of pollution unless otherwise approved by the Executive Director Public Health;
- (b) covered with a tight-fitting cover without openings of any sort other than those essential for the insertion of a pump; and
- (c) complies with the requirements of the *Health Act (Underground Water Supply) Regulations 1959*.

### 3.12 Pollution

A person shall not deposit on or under any land, any sewage, offensive matter or any other thing which may pollute or render unfit for human consumption, water from a well or other underground source.

#### *Division 4—Second-hand Furniture, Bedding and Clothing*

### 3.13 Prohibition on sale

A person shall not offer for sale or sell any second-hand furniture, bedding or clothing which is filthy or infested with vermin or vectors of disease.

### 3.14 Prohibition on possession

A dealer in second-hand furniture, bedding or clothing shall not have on any premises used for the operation of the business any second-hand furniture, bedding or clothing which is filthy or infested with vermin or vectors of disease.

#### *Division 5 – Morgues*

### 3.15 Licensing of morgues

- (1) All non-government morgues shall be licensed pursuant to the provisions of this clause.
- (2) An application for licence of a morgue shall be in the form set out in Schedule 8 and shall be—
  - (a) made by the applicant;
  - (b) forwarded to the Chief Executive Officer with the fee as fixed by the local government from time to time under Section 344C of the Act.
- (3) A licence shall –
  - (a) be in the form set out in Schedule 9; and
  - (b) expire on 30 June next after the date of its issue.
- (4) A licence shall not be granted in respect of any premises unless—
  - (a) provision has been made for the keeping of the bodies of the dead at a temperature not exceeding zero degrees Celsius;
  - (b) the walls are constructed of stone or brickwork or other approved material;
  - (c) the interior surface of all walls is covered with glazed tiles or is rendered impervious so as to be non-absorbent and washable;
  - (d) all floors are constructed of some impervious material, having a fall to an outlet

- discharging over a trapped gully; and
- (e) the premises are adequately ventilated by direct communication with the outside air.

## PART 4 –LIQUID REFUSE, LIQUID WASTE, BUTCHERS' WASTE, RUBBISH AND REFUSE

### *Division 1 – Liquid Refuse and Liquid Waste*

#### 4.1 Interpretation

In this division, unless the context otherwise requires—

**apparatus for the treatment of sewage** has the same meaning as in section 3 of the *Health Act 1911*;

**liquid refuse** includes all washing from the commercial cleaning of vehicles, overflow, bleed off, condensate and drainage from air conditioning equipment including cooling towers and evaporative coolers and other liquid used for cooling purposes and swimming pool discharges;

**liquid waste** means wastewater or any other liquid waste from domestic, industrial or commercial activities, other than effluent; and includes bathroom, kitchen, scullery and laundry wastes, all washings from animal and poultry pens and any other domestic or trade wastes that are discharged by means of a drain to a receptacle for drainage;

**receptacle for drainage** has the same meaning as in the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974*.

#### 4.2 Deposit of liquid refuse

A person shall not deposit or cause or permit to be deposited liquid refuse—

- (a) on a street;
- (b) in a storm water disposal system; or
- (c) on any land or place other than a place or depot duly authorised for that purpose.

#### 4.3 Disposal of liquid waste

- (1) The owner or occupier of premises shall provide, by one of the methods prescribed in this clause, for the disposal of all liquid waste produced on the premises; and at all times maintain in good working order and condition any apparatus used for the disposal of liquid waste.
- (2) Liquid waste shall be disposed of by one of the following methods –
  - (a) discharging it into the sewage system of a licensed water service operator in a manner approved by the licensed water service operator;
  - (b) discharging it into an apparatus for the treatment of sewage approved by the Executive Director, Public Health or the local government; or
  - (c) collection and disposal at an approved liquid waste disposal site in a manner approved by the Executive Director Public Health.

### *Division 2 – Transport of Butchers' Waste*

#### 4.4 Interpretation

In this division, unless the context otherwise requires—

**butchers' waste** includes animal skeletons and rib cages, from a boning room and the inedible

products of an abattoir or a butcher's shop.

#### 4.5 Restriction of vehicles

- (1) A person shall not use, for the transport of butchers' waste a vehicle used for the transport of food or anything intended to be used for the packing or handling of food for human consumption.
- (2) A vehicle used for the transport of butchers' waste shall not be used to transport any other item, substance or material which is not 'butchers' waste in the same compartment.

#### 4.6 Transport of butchers' waste

- (1) A person shall not transport butchers' waste otherwise than in a compartment complying with the following specifications –
  - (a) the floor and four walls to be made of an approved impervious material;
  - (b) all joints to be made water-tight;
  - (c) the loading doors, if any, to be water-tight and kept closed at all times except when loading or unloading; and
  - (d) the top and sides are to be covered by a tarpaulin or other impervious material approved by an Environmental Health Officer so as to keep the load out of sight of the public; or
  - (e) a water-tight durable and impervious container fitted with a lid which can be tightly closed.
- (2) A person shall not transport any butchers' waste in a vehicle unless the vehicle and its fittings, including the compartment or container referred to in this clause are –
  - (a) maintained in good order and condition; and
  - (b) thoroughly cleaned at the conclusion of each day's work.
- (3) A person shall not load, transport, or unload butchers' waste in a manner that is or may be offensive due to—
  - (a) the sight of animal skeletons, bones, offal or waste matter;
  - (b) the odour of putrefaction, offal or waste matter; or
  - (c) the presence of blood and particles of flesh or fat dropping onto the surface of the street, pavement or ground.

#### *Division 3 – Rubbish and Refuse*

#### 4.7 Interpretation

In this division, unless the context otherwise requires—

**rubbish or refuse** includes any filth, dirt, ashes, vegetation, garden refuse, waste material, waste food, sludge, offensive matter, cinders, wood or metal shavings and sawdust but does not include liquid waste or liquid refuse; and

**refuse disposal site** means land set apart by the local government under the Act as a site for the deposit of rubbish or refuse; or which is licensed or registered under the provisions of the *Environmental Protection Regulations 1987*; and any waste facility as defined in the *Waste Avoidance and Resource Recovery Act 2007* that is operated by the local government.



#### 4.8 Deposit of refuse

A person shall not deposit or cause or permit to be deposited any rubbish or refuse in or on any street or on any land other than a refuse disposal site defined in these local laws or a waste service or waste facility as defined in the *Waste Avoidance and Resource Recovery Act 2007* that is operated by the local government or by an approved contractor.

#### 4.9 Burning of rubbish or refuse

- (1) A person shall not set fire to rubbish, either in any incinerator or on the ground except in accordance with the conditions of the local government.
- (2) Subject to subclause (3), the burning of rubbish is subject to the following conditions –
  - (a) the material to be burnt –
  - (b) does not include any plastic, rubber, food scraps, green garden cuttings and other material which may become offensive when burnt; and
  - (c) is of such quantity, or of such a nature, as to be unsuitable for removal by the local government refuse collection service;
  - (d) there is no other appropriate means of disposal; and
  - (e) burning shall not take place –
    - (i) during any period for which an air dispersion alert has been issued by the Bureau of Meteorology; or
    - (ii) where there is no current air dispersion alert, outside the hours of 10.00am to 6.00pm; and
    - (iii) an incinerator must be designed to burn efficiently in order to minimise smoke emissions and to incorporate a spark arresting device and be located –
      - i. at least 3 metres from a fence, building or inflammable matter; and
      - ii. in such a position so as not to create a nuisance or be offensive to other persons.
- (3) Subject to any requirements of a Fire Break Notice issued by the local government and any directions issued by the Department of Fire and Emergency Services, the local government may grant a permit to clear by burning fire breaks or vacant blocks of grass, straw, hay, undergrowth, herbage and other similar vegetation.

### PART 5 – NUISANCES AND GENERAL

#### *Division 1 – Nuisances*

#### 5.1 Interpretation

In this division, unless the context otherwise requires – “fertiliser” includes manure.

#### 5.2 Footpaths etc. to be kept clean

An owner or occupier of premises shall not cause or permit the escape of smoke, dust, fumes, offensive or foul odours, liquid waste or liquid refuse from the premises in such quantity or of such a nature as to cause or to be a nuisance.

**5.3 Escape of smoke etc.**

An owner or occupier of premises shall not cause or permit the escape of smoke, dust, fumes, offensive or foul odours, liquid waste or liquid refuse from the premises in such quantity or of such a nature as to cause or to be a nuisance.

**5.4 Public vehicles to be kept clean**

The owner or person in control of a public vehicle shall maintain the vehicle at all times—

- (a) in a clean condition;
- (b) free from vectors of disease; and
- (c) whenever directed to do so by an Environmental Health Officer, thoroughly clean and disinfect the vehicle.

**5.5 Prohibition against spitting**

A person shall not spit—

- (a) on a footpath, street or public place; or
- (b) in a train, bus or other public transport.

**5.6 Transportation, use and storage of offal or blood**

A person shall not transport or store offal or blood, for the purpose of being used as manure, unless it has been sterilised by steam and properly dried or by some other effective method approved by an Environmental Health Officer.

**5.7 Use or storage of fertiliser**

An owner or occupier of premises shall not use or keep for the purpose of use, as fertiliser any—

- (a) pig manure;
- (b) human faeces; or
- (c) urine.

**5.8 Storage and dispatch of artificial fertiliser**

An owner or occupier of premises where artificial fertiliser is stored in bulk for sale shall—  
keep all artificial fertiliser in a building—

- (a) of which the walls, floors and ceilings or undersides of the roof are constructed of durable and non-absorbent materials finished internally with a smooth surface; and
- (b) free from damp and properly ventilated;
- (c) take proper precautions to prevent the emission of dust or offensive effluvia from the building; and
- (d) ensure that all artificial fertiliser dispatched from the premises is packed in such a manner as to prevent any nuisance arising during transit.

**5.9 Storage of fertiliser and compost**

- (1) Subject to subclause (2) fertiliser and compost is not to be stored inside a dwelling house in a habitable room, kitchen, laundry, bathroom, living area, passage way or bedroom.
- (2) Fertiliser and compost can be stored—
  - (a) in a non-habitable building such as a shed, garage or storage room which is fully enclosed, well ventilated and separated from the habitable areas of the dwelling house;

- or
- (b) in an outside area.
- (3) The owner or occupier of premises where fertiliser or compost is stored shall—
  - (a) prevent the escape of odours, dust or particles which could cause a nuisance;
  - (b) treat the fertiliser or compost in such a manner so as to effectively prevent it attracting or being a breeding place for flies or other insects; and
  - (c) store only such amounts of fertiliser or compost;
    - (i) as can be readily used within a reasonable period; or
    - (ii) as may be directed by an Environmental Health Officer.

#### *Division 2 – Keeping of Animals*

##### **5.10 Cleanliness**

An owner or occupier of premises in or on which a dog, cat or other animal or bird is kept shall—

- (a) keep the premises free from excrement, filth, food waste and all other matters which is or is likely to become offensive or injurious to health or to attract rats or other vermin and vectors of disease;
- (b) when so directed by an Environmental Health Officer, clean and disinfect the premises; and
- (c) keep the premises, so far as possible, free from flies or other vermin and vectors of disease by spraying with a residual insecticide or other effective means.

##### **5.11 Animal enclosures**

- (1) A person shall not keep or cause or permit to be kept any animals or birds on premises which are not effectively drained or of which the drainage flows to the walls or foundations of any building.
- (2) The owner or occupier of premises where animals or birds are kept shall, when directed by an Environmental Health Officer, pave, grade and drain floors of all structures and the surface of the ground of all enclosures used for the keeping of animals or birds.

##### **5.12 Slaughter of animals**

- (1) Subject to subclause (2), a person shall not slaughter any animal within the district.
- (2) Subclause (1) does not apply to—
  - (a) euthanasia of animals by veterinarians or other duly authorised persons;
  - (b) the slaughter of animals for human consumption in abattoirs approved by the local government;
  - (c) farmers, pastoralists and the like who slaughter stock for their own consumption and who are exempted under Regulation 20 (2) of the *Food Regulations 2009*; and
  - (d) slaughter of animals for the purposes of pet meat and game meat operations.

##### **5.13 Disposal of dead animals**

- (1) An owner or occupier of premises on which there is a dead animal shall immediately remove the carcass and arrange for its disposal at an approved disposal site.
- (2) An owner, or a person having the care of any animal that dies or is killed in a public or private place, shall immediately remove the carcass and arrange for its disposal at an approved disposal site.
- (3) The requirements of subclauses (1) and (2) shall not limit the practice by farmers, pastoralists

and the like of disposing of carcasses on rural land in a manner that is not likely to pollute or be dangerous or injurious to health.

- (4) An owner or operator of a veterinary practice where dead animals are kept for more than 12 hours shall refrigerate the carcass prior to its removal and disposal, at an approved disposal site.

#### *Division 3 – Keeping of Approved Animals*

##### **5.14 Interpretation**

In this division, unless the context otherwise requires—

**approved animal** means a horse, cow, pig, sheep, camel, alpaca, llama or goat;

**cow** includes an ox, calf or bull;

**horse** includes an ass, mule, donkey or pony; and

**natural shelter** means a mature tree or belt of trees

##### **5.15 Keeping of pigs**

- (1) An owner or occupier of premises within the district shall not keep a pig except in accordance with the requirements of the *Shire of Chittering Town Planning Scheme*.
- (2) Where a piggery has been approved in accordance with the *Shire of Chittering Town Planning Scheme*, the requirements of this local law under Part 9 – Offensive Trades Division 7 must be complied with.
- (3) Notwithstanding the provisions of subclauses (1) and (2), piggeries categorised under the *Environmental Protection Regulations 1987* as “Intensive piggery: premises on which pigs are fed, watered and housed in pens” will require licensing by the Department of Environment Regulation for premises with 1,000 animals or more (Category 2) or registration for premises with more than 500 but less than 1,000 animals (Category 69).

##### **5.16 Keeping of approved animals and provision of stables**

- (1) An owner or occupier of premises shall only keep an approved animal in accordance with the provisions of the *Shire of Chittering Town Planning Scheme*.
- (2) An owner or occupier of premises who keeps an approved animal shall provide adequate natural shelter or a stable which shall comply with the requirements of the Building Code, and which —
  - (a) is not situated within 15 metres of a house or other premises;
  - (b) has adequate space for each animal;
  - (c) is constructed of weatherproof materials and of a design which provides adequate protection from the elements;
  - (d) provides adequate natural ventilation; and
  - (e) subject to subclause (3), has a floor, which —
    - (i) is constructed of a material approved by an Environmental Health Officer ; and when required
    - (ii) has a fall which effectively drains liquid wastes into a trapped gully situated outside the stable and discharged in a manner approved by an Environmental Health Officer.

- (3) The construction of a stable with a sand floor may be permitted, subject to the following conditions—
  - (a) the site must be well drained with the highest known water table no closer than 1.5 metres below the ground or sand floor level;
  - (b) whether natural or imported sand, it must be clean, coarse, free from dust and prevent pooling of liquids ;
  - (c) the stable design must facilitate suitable access for cleaning and removal of waste materials and replenishment of clean sand; and
  - (d) in all other respects subclause (2) shall apply to the stable.
- (4) The owner or occupier of premises on which a stable is located shall—
  - (a) maintain the stable in a clean and hygienic condition at all times;
  - (b) keep all parts of the stable so far as possible free from flies, vermin or other vectors of disease; by spraying with an approved residual insecticide or other effective means; and
  - (c) comply with the relevant requirements of the *Biosecurity and Agriculture Management Act 2007 - Biosecurity and Agriculture Management (Stable Fly) Management Plan 2016* (as amended from time to time by the Department of Food and Agriculture).
- (5) The owner or occupier of a stable shall comply with any direction or notice of an Environmental Health Officer in relation to its state of repair, cleanliness, hygiene, control of pests or any other matter which is considered necessary to prevent health nuisances or maintain a satisfactory standard for the keeping of animals therein.

#### 5.17 Proximity of approved animals to a dwelling house

An owner or occupier of premises shall not permit an approved animal to approach within 15 metres of a dwelling house.

#### 5.18 Manure receptacle

An owner or occupier of premises on which a stable is constructed shall—

- (a) provide in a position convenient to the stable a receptacle for manure, constructed of smooth, impervious, durable material that is easily cleanable and provided with a tight fitting hinged cover, and with no part of the floor lower than the surface of the adjoining ground;
- (b) keep the lid of the receptacle closed except when manure is being deposited or removed;
- (c) cause the receptacle to be emptied at least once a week and as often as may be necessary to prevent it coming offensive or a breeding place for flies or other vectors of disease;
- (d) keep the receptacle so far as possible free from flies or other vectors of disease by spraying with a residual insecticide or other effective means; and
- (e) cause all manure produced on the premises to be collected daily and placed in the receptacle.

### Division 4 – Keeping of Poultry and Pigeons

#### 5.19 Interpretation

- (1) In this division, unless the context otherwise requires—

**poultry** includes fowls, peafowls, turkeys, geese, ducks, chickens, bantams and other domestic fowls;

**pigeons** are birds that are classified within the family Columbidae and includes doves; and

**prescribed area** means those areas in the *Shire of Chittering Town Planning Scheme* zoned as



being within a town site (and including R Coded areas within town sites) and those areas zoned Rural Residential.

- (2) This division applies to the keeping of poultry on residential properties for domestic purposes and not to commercial poultry establishments such as broiler, breeder or egg producing farms.
- (3) Commercial poultry establishments mentioned in subclause (2) are to manage operations in accordance with the '*Environmental Code of Practice for Poultry Farms in Western Australia 2004*' produced by the Western Australian Broilers Growers Association and Poultry Farmers Association of Western Australia, in conjunction with state and local authorities to control environmental and health nuisances.

#### **5.20 Limitation on numbers of poultry and pigeons**

- (1) An owner or occupier of premises in prescribed areas shall not keep more than 20 poultry and 20 pigeons on any one lot of land.
- (2) An Environmental Health Officer may issue a written notice to the owner or occupier of land, whether in a prescribed area or not, where poultry or pigeons are kept for the number of poultry and pigeons to be reduced to ensure that a health nuisance does not exist.
- (3) The Principal Environmental Health Officer may increase the number of poultry or pigeons kept on any one lot of land if satisfied that a health nuisance does not exist.

#### **5.21 Conditions of keeping poultry**

- (1) A person who keeps poultry or permits poultry to be kept shall ensure that –
  - (a) all poultry is kept in a properly constructed and securely fastened structure or enclosure;
  - (b) the structure or enclosure is in a yard having an otherwise unobstructed area of at least 30 square metres; and
  - (c) no poultry is able to approach within 15 metres of a street other than a right of way unless, in the case of land at the junction of two or more streets, an Environmental Health Officer has approved a lesser distance.
- (2) A person who keeps poultry or permits poultry to be kept shall ensure no poultry is able to encroach within 15 metres of a dwelling house, public building, or premises where people are employed or premises where food is stored, prepared manufactured or sold.

#### **5.22 Roosters**

- (1) An owner or occupier of premises shall not—
  - (a) without the written approval of an Environmental Health Officer; or
  - (b) except in accordance with any conditions imposed by an Environmental Health Officer in connection with the approval under paragraph (a), keep or permit a rooster to be kept on the premises.
- (2) An Environmental Health Officer may, upon written application, grant approval with or without conditions to the owner or occupier of premises to keep on the premises a specified number of roosters.
- (3) An Environmental Health Officer may rescind approval for the keeping of rooster(s) if they cause a nuisance.

### 5.23 Conditions of keeping pigeons

A person who keeps, or permits to be kept, pigeons shall ensure that—

- (a) none is able to approach within 15 metres of a dwelling, public building or premises where people are employed or where food is stored, prepared, manufactured or sold; and
- (b) except where homing pigeons are freed for exercise, the pigeons are kept in a properly constructed pigeon loft that is in a yard having an otherwise unobstructed area of at least 30 square metres.

### 5.24 Removal of nonconforming structure or enclosure

If a structure or enclosure is used for the keeping of poultry or pigeons contrary to the provisions of clauses 5.21 or 5.23, as applicable, an Environmental Health Officer may direct the owner or occupier to amend it or remove it.

### 5.25 Restrictions on pigeon nesting or perching

An Environmental Health Officer may order an owner or occupier of a house or other structure in or on which pigeons are, or are in the habit of, nesting or perching so as to create a health nuisance to take adequate steps to prevent them continuing to do so.

## Division 5 – Feedlots

### 5.26 Interpretation

**feedlot** means a confined area with watering and feeding facilities where animals are held and fed for the purpose of weight gain.

**animal** includes cattle, sheep, goats, deer and the like.

### 5.27 Premises to be approved

- (1) No premises shall be used as a feedlot unless approved under the provisions of the *Shire of Chittering Town Planning Scheme*.
- (2) Notwithstanding subclause (1), cattle feedlots with more than 500 animals are to be licensed under Schedule 1 (Category 1) of the Environmental Protection Regulations 1987 being premises —
  - (a) situated less than 100 m from a watercourse; and
  - (b) on which the number of cattle per hectare exceeds 50; or
 registered under Schedule 2 (Category 68) for premises —
  - (a) situated 100 m or more from a watercourse; and
  - (b) on which the number of cattle per hectare exceeds 50.
- (3) Feedlots are to comply with the buffer distances in Table 1.

**Table 1: Required buffer distances for feedlots**

Buffer	Minimum Distances
Townsite boundaries	5,000m
Isolated rural dwellings, dairies and industries	1,000m
Public roads and recreation areas	100m
Neighbouring rural property boundaries	50m
Major water courses, lakes, wetlands	300m
Bores, wells or soak wells used for drinking, stock or irrigation	300m

Minor water courses	100m
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### 5.28 Management of beef cattle feedlots

Beef cattle feedlots are to be operated and managed in accordance with the “*Guidelines for the Environmental Management of Beef Cattle Feedlots in Western Australia (2004)*”.

### 5.29 Site conditions

The owner or occupier of an approved feedlot must ensure that –

- (a) the premises is sited in an area where the land slope is no greater than 1:20 but no less than 1:100;
- (b) the premises is sited on sandy loam soils rather than coarse sand;
- (c) the premises has a minimum groundwater clearance of 3 metres;
- (d) drainage diverts all uncontaminated stormwater from the general waste stream;
- (e) stock numbers per pen do not cause dust and effluvia to become a nuisance.; and
- (f) the premises has solid and liquid waste disposal arrangements that are not offensive or injurious to health.

### 5.30 Compliance with direction or notice of an environmental health officer

The owner or occupier of a feedlot shall comply with any direction or notice of an Environmental Health Officer in relation to its state of repair, cleanliness, hygiene, control of pests or any other matter which is considered necessary to prevent health nuisances or maintain a satisfactory standard for the keeping of animals therein.

## PART 6 – PEST CONTROL

### Division 1 – Flies

#### 6.1 Interpretation

In this division, unless the context otherwise requires –

**flies** means any of the two-winged insects constituting the order Diptera commonly known as flies.

#### 6.2 Control of flies

Owners and occupiers of any land within the district that is breeding flies, or that is likely to breed flies, are to comply with the requirements of the *Fly Eradication Regulations*.

### Division 2 – Mosquitoes

#### 6.3 Interpretation

In this division, unless the context otherwise requires—

**mosquitoes** means any of the two winged insects constituting the family *Diptera Clididae* commonly known as mosquitoes.

**6.4 Measures to be taken to prevent mosquito breeding**

- (1) An owner or occupier of premises shall ensure that the premises are kept free from possible mosquito breeding sites and shall follow any direction or notice of an Environmental Health Officer for the purpose of—
  - (a) controlling the prevalence of mosquitoes;
  - (b) eradication of mosquitoes; and
  - (c) effectively preventing the breeding of mosquitoes.
- (2) Assist an Environmental Health Officer to locate any possible mosquito breeding sites that may be present in or about the premises.

**6.5 Measures to be taken by occupier**

An occupier of premises where water is kept in a horse trough, poultry drinking vessel or other receptacle shall—

- (a) frequently change the water; and
- (b) keep the water clean and free from vegetable matter and slime.

**6.6 Removal of undergrowth or vegetation**

Where it appears to an Environmental Health Officer that there is, on any premises, undergrowth or vegetation likely to harbour mosquitoes, the officer may direct, orally or in writing, the owner or occupier of the premises to cut down and remove within a specified time the undergrowth or vegetation.

**6.7 Filling in excavations etc.**

A person who undertakes any activity on any land which creates an excavation likely to hold water and cause mosquito breeding shall as soon as practicable following the completion of the activity, and taking into consideration the purpose of the excavation, ensure that the excavation is filled in with clean material and made level with the surrounding surface or alternatively treated with an approved pesticide to control mosquito breeding.

**6.8 Drains, channels and septic tanks**

An owner or occupier of land shall—

- (a) cause all drains and channels in or on the land to be kept in good order and free from obstruction; and
- (b) where a septic tank is installed on the land—
  - (i) apply an approved larvicide according to the direction on the container, into the septic tank system, whenever directed to do so by an Environmental Health Officer; and
  - (ii) provide, and keep in sound condition at all times, wire mesh having opening no larger than 1.2 millimetres covering any inlet vent to the tank.

**6.9 Drainage of land**

An owner or occupier of land upon which there is water liable to become a breeding place for mosquitoes shall, when required by the local government, effectively drain the land and, for that purpose, shall—

- (a) make or provide drains on the land;
- (b) remove all irregularities in the surface of the land;

- (c) if necessary, adjust the surface of the land or raise the level of the surface in such a manner that—
- (i) the water on the land may flow into the drains without obstruction; and
  - (ii) no water shall remain on any portion of the land other than the drains; and
  - (iii) keep all drains in good order and free from obstruction.

*Division 3 – Rodents*

**6.10 Interpretation**

In this division, unless the context otherwise requires—

**rodents** means those animals belonging to the order *Rodentia* and includes rats and mice but does not include native rodents, laboratory bred rats and mice or animals (other than rats) kept as pets in an enclosure designed for the purpose of keeping as pets animals of that kind.

**6.11 Measures to be taken to eradicate rodents**

- (1) An owner or occupier of premises shall at all times take effective measures to eradicate any rodents in or on the premises.
- (2) A person must not store, or allow to be stored, on any premises, any food, refuse or other waste matter unless it is contained in a rodent proof receptacle or compartment.
- (3) An Environmental Health Officer may direct, orally or in writing, an owner or occupier of premises to take whatever action, in the opinion of the Environmental Health Officer, is necessary to prevent the presence of rodents in or on the premises.

*Division 4 – Cockroaches*

**6.12 Interpretation**

In this division, unless the context otherwise requires—

**cockroach** means any of the various orthopterous insects commonly known as cockroaches.

**6.13 Measures to be taken to eradicate cockroaches**

- (1) An owner or occupier of premises shall take effective measures to eradicate any cockroaches in or on the premises.
- (2) An Environmental Health Officer may direct, orally or in writing, an owner or occupier of premises to take whatever action is necessary to prevent or deter the presence of cockroaches in or about the premises.
- (3) An owner or occupier shall within the time specified comply with any direction given by an Environmental Health Officer.

*Division 5 – Argentine Ants*

**6.14 Interpretation**

In this division, unless the context otherwise requires –

**argentine ant** means an ant belonging to the species *Irdomyrmex humilis*.



**6.15 Measures to be taken to keep premises free from Argentine ants**

An owner or occupier of premises shall comply with the requirements of the *Argentine Ant Regulations* if an infestation of Argentine ants are found on the premises.

*Division 6 – European Wasps***6.16 Interpretation**

In this division, unless the context otherwise requires—

**European wasp** means a wasp *Vespula germanica*.

**6.17 Measures to be taken to keep premises free from European wasp nest**

An owner or occupier of premises shall ensure that the premises are kept free from European wasp nests and shall—

- (a) immediately notify the local government of any wasp nest in, on or about the premises that is suspected to be a European wasp nest;
- (b) follow any direction of an Environmental Health Officer for the purpose of destroying the wasps and their nest; and
- (c) assist an Environmental Health Officer, of his or her representative, to trace any nest that may be present in, on or about the premises.

*Division 7 – Bee Keeping***6.18 Interpretation**

In this division, unless the context otherwise requires—

**bee** means an insect belonging to any of the various *hymenopterous* insects of the super family *Apoidea* and commonly known as bee;

**hive** means a moveable or fixed structure, container or object in which a colony of bees is kept.

**6.19 Limitation on numbers of hives**

- (1) A person shall not keep or permit the keeping of bees anywhere within the district unless approval to do so has been given by an Environmental Health Officer.
- (2) Subject to subclauses (3) and (4), a person shall not keep or permit the keeping of bees in more than 2 hives on a lot.
- (3) An Environmental Health Officer may, upon written application, consent, with or without conditions, to a person keeping bees in more than 2 hives on a lot.
- (4) A person shall comply with any conditions imposed by an Environmental Health Officer under subclause (3).

**6.20 Restrictions on keeping of bees in hives**

A person shall not keep or permit the keeping of bees in a hive on a lot unless, at all times—

- (a) an adequate and permanent supply of water is provided on the lot within 10 metres of the hives;

- (b) the hive is kept—
  - (i) outside, and at least 10 metres from, any building other than a fence;
  - (ii) at least 10 metres from, any building other than a fence;
  - (iii) at least 5 metres from the boundary of the lot; and
  - (iv) the hive is enclosed on all sides by a fence, wall or other enclosure.

#### 6.21 Bees which cause a nuisance not to be kept

- (1) A person shall not keep, or permit the keeping of, bees which cause a nuisance.
- (2) An Environmental Health Officer may direct any person to remove any bees or beehives which in the opinion of the Environmental Health Officer is causing a nuisance.

### *Division 8 – Arthropod Vectors of Disease*

#### 6.22 Interpretation

In this division, unless the context otherwise requires—

- (a) **arthropod vectors of disease** includes—
  - (i) fleas (*Siphonaptera*)
  - (ii) bedbugs (*Cimex lectularious*)
  - (iii) crab lice (*Phthirus pubis*)
  - (iv) body lice (*Pediculus humanus var. corporis*);
  - (v) head lice (*Pediculus humanus var. capitis*); and
  - (vi) any other insect prescribed by the local government.

#### 6.23 Responsibility of the owner or occupier

The owner or occupier of the premises shall –

- (a) keep the premises and any person residing in or on the premises free from any vectors of disease; and
- (b) comply with the direction of an Environmental Health Officer to treat the premises, or anything on the premises, for the purpose of destroying any vectors of disease.

## **PART 7 – INFECTIOUS DISEASES**

### *Division 1 – General Provisions*

#### 7.1 Purpose of exercise of powers

The powers under this Part are to be exercised for the purpose of preventing or controlling the spread of an infectious disease.

#### 7.2 Environmental Health Officer may visit, inspect and report

An Environmental Health Officer may visit and inspect any house, its occupants, fixtures and fittings, out-buildings, yards, drains and sewers connected with any house where an infectious disease has been identified or where an infectious disease is suspected in order to check or prevent the spread of any infectious disease.

**7.3 Requirements on owner or occupier to clean, disinfect and disinfect**

An Environmental Health Officer may, by notice in writing, direct an owner or occupier of premises, within the time and in the manner specified in the notice, to clean, disinfect and disinfect—

- (a) the premises; or
- (b) such things in or on the premises as are specified in the notice, or both, to the satisfaction of an Environmental Health Officer.

**7.4 Environmental Health Officer may disinfect or disinfect the premises**

- (1) Where the local government or the Medical Officer is satisfied that any case of infectious disease has occurred on any premises, the local government or the Medical Officer may direct an Environmental Health Officer, other local government officer or other person to disinfect and disinfect the premises or any part of the premises and anything in or on the premises.
- (2) An owner or occupier of premises shall permit, and provide access to enable, an Environmental Health Officer, other local government officer or other person to carry out the direction given under subclause (1).
- (3) The local government may recover the cost of carrying out the work under this clause from the owner or occupier of the premises in or on which the work was carried out.
- (4) The local government is not liable to pay compensation or damages of any kind to the owner or occupier of premises in relation to any action taken by the local government or any of its staff under this clause, other than compensation or damages for loss or damage suffered because the local government or any of its staff acted negligently or in breach of duty.

**7.5 Insanitary houses, premises and things**

- (1) An owner or occupier of any house or premises shall maintain the house or premises free from any insanitary condition or thing.
- (2) Where the local government considers that a house is insanitary, it may, by notice in writing, direct an owner of the house, within the time and in the manner specified in the notice, to destroy or amend the house.
- (3) Where an Environmental Health Officer considers that—
  - (a) a house or premises is not being maintained in a sanitary condition; or
  - (b) anything is insanitary, the officer may, by notice in writing, direct, as the case may be—
    - (i) the owner or occupier of the house or premises to amend any insanitary condition; or
    - (ii) the owner or occupier of the thing to destroy or amend it, within the time and in the manner specified in the notice.
- (4) A person who is given notice under subclauses (2) or (3) shall comply with the terms of the notice.

**7.6 Medical Officer may authorise disinfecting**

Where the Medical Officer believes that a person is or may be infected by an infectious disease, the Medical Officer may direct the person to have his or her body, clothing and effects disinfected at a place and in a manner directed by the Medical Officer.

**7.7 Persons in contact with an infectious disease sufferer**

If a person in any house is, or is suspected of, suffering from an infectious disease, any occupant of the house or any person who enters or leaves the house—

- (a) shall obey such instructions or directions as the local government or the Medical Officer may issue;
- (b) may be removed, at the direction of the local government or the Medical Officer to isolation in an appropriate place to prevent or minimise the risk of the infection spreading; and
- (c) if so removed, shall remain in that place until the Medical Officer directs otherwise.

**7.8 Declaration of infected house or premises**

- (1) To prevent or check the spread of infectious disease, the local government or the Medical Officer may from time to time declare any house or premises to be infected.
- (2) A person shall not enter or leave any house or premises declared to be infected without the written consent of the Medical Officer or an Environmental Health Officer.

**7.9 Destruction of infected animals**

An Environmental Health Officer, upon being satisfied that an animal is or may be infected or is liable to be infected or to convey infection may, by notice of writing, direct that the animal be examined by a registered veterinary officer and all steps taken to enable the condition to be controlled or eradicated or the animal destroyed and disposed of—

- (a) in the manner and within the time specified in the notice; and
- (b) by the person in whose possession, or upon whose premises, the animal is located.

**7.10 Disposal of a body**

- (1) An occupier of premises in or on which is located the body of a person who has died of an infectious disease shall, subject to subclause (2), cause the body to be buried or disposed of in such manner, within such time and with such precautions as may be directed by the Medical Officer.
- (2) A body shall not be removed from the premises where death occurred except to a cemetery or a morgue.

**7.11 Local government may carry out work and recover costs**

- (1) Where—
  - (a) a person is required under this division or by a notice given under this division, to carry out any work; and
  - (b) that person fails or neglects to comply with the requirement, that person commits an offence and the local government may carry out the work or arrange for the work to be carried out by another.
- (2) The costs and expenses incurred by the local government in the execution of a power under this clause may be recovered from the person referred to in subclause (1).
- (3) The local government is not liable to pay compensation or damages of any kind to the person referred to in subclause (1) in relation to any action taken by the local government under this clause, other than compensation or damages for loss or damage suffered because the local government acted negligently or in breach of duty.

*Division 2 – Disposal of Used Condoms and Needles*

**7.12 Disposal of used condoms**

- (1) An occupier of premises on or from which used condoms are produced shall ensure that the condoms are—
  - (a) placed in a sealed impervious container and disposed of in a sanitary manner; or
  - (b) disposed of in such a manner as may be directed by an Environmental Health Officer.
- (2) A person shall not dispose of a used condom in a public place except in accordance with subclause (1).

**7.13 Disposal of used needles**

A person shall not dispose of a used hypodermic syringe or needle in a public place unless it is placed in an impenetrable, leak proof container and deposited in a refuse receptacle.

**PART 8 – LODGING HOUSES**

*Division 1 – Registration*

**8.1 Interpretation**

- (1) In this part, unless the context otherwise requires—

**bed** means a single sleeping berth only. A double bed provided for the use of couples, shall have the same floor space requirements as two single beds;

**bunk** means a sleeping berth comprising one of two arranged vertically;

**dormitory** means a building or room utilised for sleeping purposes at a short term hostel or recreational campsite;

**keeper** means a person whose name appears on the register of keepers, in respect of a lodging house, as the keeper of that lodging house;

**laundry** means a facility consisting of—

- (a) a washing machine with a capacity of not less than 4 kilograms of dry clothing;
- (b) either an electric drying cabinet or not less than 30 metres of clothes line;
- (c) one wash trough of not less than 45 litres capacity, connected to both hot and cold water; and
- (d) A hot water system that—
  - (i) is capable of delivering an adequate supply of water at a temperature of at least 65 degrees C for each washing machine and wash trough provided with the communal facilities; and
  - (ii) has a delivery rate of not less than 5 litres per minute for each washing machine or a higher delivery rate according to the manufacturer's specification;

**lodger** means a person who obtains, for hire or reward, board or lodging in a lodging house;

**lodging house** includes a recreational campsite, a serviced apartment and a short term hostel and has the same meaning defined in Section 3 of the Act;

**manager** means a person duly appointed by the keeper in accordance with this division to reside in, and have the care and management of, a lodging house;

**recreational campsite** means a lodging house –



- (a) situated on a campsite principally used for –
  - (i) recreational, sporting, religious, ethnic or educational pursuits, or
  - (ii) conferences or conventions; and
- (b) where the period of occupancy of any lodger is not more than 14 consecutive days, and includes youth camps, youth education camps, church camps and riding schools;

**register of lodgers** means the register kept in accordance with Section 157 of the Act and this Part;

**resident** means a person, other than a lodger, who resides in a lodging house;

**serviced apartment** means a lodging house in which each sleeping apartment, or group of sleeping apartments in common occupancy, is provided with its own sanitary conveniences and may have its own cooking facilities;

**short term hostel** means a lodging house where the period of occupancy of any lodger is not more than 14 consecutive days and shall include youth hostels and backpacker hostels;

**sleeping apartment** means a room used for lodgers to sleep in;

**vector of disease** means an arthropod or rodent that transmits, by biological or mechanical means, an infectious agent from a source or reservoir to a person, and includes fleas, bedbugs, crab lice and head lice.

- (2) Where in this Part an act is required to be done or forbidden to be done in relation to any lodging house, the keeper of the lodging house has, unless the contrary intention appears, the duty of causing to be done the act so required to be done, or of preventing from being done the act so forbidden to be done, as the case may be.

## 8.2 Lodging house not to be kept unless registered

A person shall not keep or cause, suffer or permit to be kept a lodging house unless—

- (a) the lodging house is constructed in accordance with the requirements of this Part;
- (b) the lodging house is registered by the local government under clause 8.4;
- (c) the name of the person keeping the lodging house is entered in the register of keepers; and
- (d) either—
  - (i) the keeper; or
  - (ii) a manager who, with the written approval of an Environmental Health Officer, has been appointed by the keeper to have the care and management of the lodging house whenever there is one or more lodgers in this lodging house resides or intends to reside continuously in the lodging house.

## 8.3 Application for registration

An application for registration of a lodging house shall be—

- (a) in the form prescribed in Schedule 1;
- (b) duly completed and signed by the proposed keeper; and
- (c) accompanied by—
  - (i) the fee as fixed from time to time by the local government under Section 344C of the Act; and
  - (ii) detailed plans and specifications of the lodging house.

**8.4 Approval of application**

The local government may approve, with or without conditions, an application under clause 8.3 by issuing to the applicant a certificate in the form of Schedule 2.

**8.5 Renewal of registration**

A person who keeps a lodging house which is registered under this Part shall—

- (a) during the month of June in each year apply to the local government for the renewal of the registration of the lodging house; and
- (b) pay the fee as fixed from time to time by the local government under Section 344C of the Act at the time of making each application for renewal.

**8.6 Notification upon sale or transfer**

If the owner of a lodging house sells or transfers or agrees to sell or transfer the lodging house to another person, he or she shall, within 14 days of the date of sale, transfer or agreement, give to the Chief Executive Officer, in the form of Schedule 3 written notice of the full name, address and occupation of the person to whom the lodging house has been, or is to be, sold or transferred.

**8.7 Revocation of registration**

- (1) Subject to subclause (3), the local government may, at any time, revoke the registration of a lodging house for any reason which, in the opinion of the local government, justifies the revocation.
- (2) Without limiting the generality of subclause (1), the local government may revoke a registration upon any one or more of the following grounds—
  - (a) that the lodging house has not, to the satisfaction of an Environment Health Officer, been kept free from vectors of disease or in a clean, wholesome and sanitary condition;
  - (b) that the keeper has—
    - (i) been convicted of an offence against these local laws in respect of the lodging house;
    - (ii) not complied with a requirement of this Part; or
    - (iii) not complied with a condition of registration;
    - (iv) that the local government, having regard to a report from the Police Service, is satisfied that the keeper or manager is not a fit and proper person; and
    - (v) that, by reason of alterations or additions or neglect to repair or renovate, the condition of the lodging house is such as to render it, in the opinion of an Environmental Health Officer, unfit to remain registered.
- (3) Before revoking the registration of a lodging house under this clause, the local government shall give notice to the keeper requiring him or her, within a time specified in the notice, to show cause why the registration should not be revoked.
- (4) Whenever the local government revokes the registration of a lodging house, it shall give the keeper notice of the revocation and the registration shall be revoked as from the date on which the notice is served on the keeper.

*Division 2 – Construction and use requirements***8.8 General construction requirements**

The general construction requirements of a lodging house shall comply with the Building Code.

**8.9 Insect screening**

The keeper shall provide and maintain in good working order and condition windows and external doors that are screened with mesh having openings no larger than 1.2 millimetres.

**8.10 Sanitary conveniences**

- (1) A keeper shall maintain in good working order and condition and in convenient positions on the premises—
  - (a) toilets; and
  - (b) bathrooms, each fitted with a shower or bath (or both) and hand wash basin, in accordance with the requirements of the Building Code.
- (2) A bathroom or toilet which is used as a private bathroom or toilet to the exclusion of other lodgers or residents shall not be counted for the purposes of subclause (1).
- (3) Each bath, shower and hand wash basin shall be provided with an adequate supply of hot and cold water.
- (4) The walls of each shower and bath shall be of an impervious material to minimum height of 1.8 metres above the floor level.
- (5) Each toilet and bathroom shall—
  - (a) be so situated, separated and screened so as to ensure privacy;
  - (b) be apportioned to each sex;
  - (c) have a distinct sign displayed in a prominent position denoting the sex for which the toilet or bathroom is provided; and
  - (d) be provided with adequate electric lighting.
- (6) Subclauses 5 (a), (b) and (c) do not apply to a serviced apartment.

**8.11 Laundry**

- (1) A keeper shall subject to subclause (2) –
  - (a) provide on the premises a laundry for each 15 lodgers;
  - (b) at all times maintain each laundry in a proper sanitary condition and in good repair;
  - (c) provide an adequate supply of hot and cold water to each wash trough, sink and washing machine; and
  - (d) ensure that the floor area of each laundry is properly surfaced with an even fall to a floor waste.
- (2) An Environmental Health Officer may approve the provision of a reduced number of laundry facilities if suitable equipment of a commercial type is installed.

**8.12 Kitchen**

The keeper of a lodging house shall provide in that lodging house a kitchen which complies with the relevant requirements of the *Food Act 2008*, *Food Regulations 2009* and Standards 3.1.1, 3.2.2, and 3.2.3 of the Food Standards Code as determined by an Environmental Health Officer.

**8.13 Cooking facilities**

The keeper of a lodging house where meals are prepared shall provide a kitchen with cooking appliances of a number and type approved by an Environmental Health Officer.

**8.14 Dining room**

The keeper of a lodging house shall provide in that lodging house a dining room located in close proximity to, or combined with, the kitchen;

- (a) the floor area of which shall be not less than the greater of—
  - (i) 0.5 square metres per person; or
  - (ii) 10 square metres; and
- (b) which shall be—
  - (i) adequately furnished to accommodate, at any one time, half of the number of lodgers; and
  - (ii) provided with a suitable floor covering.

**8.15 Lounge room**

The keeper of a lodging house shall provide in that lodging house a lounge room—

- (a) with a floor area of—
  - (i) where the lounge is not combined with the dining room – not less than 0.6 square metres per person; or
  - (ii) where the lounge room is combined with a dining room – not less than 1.2 square metres per person, but in either case having a minimum of 13 square metres; and
- (b) which shall be—
  - (i) adequately furnished to accommodate, at any one time, half the number of lodgers; and
  - (ii) provided with a suitable floor covering.

**8.16 Fire prevention and control**

- (1) A keeper shall—
  - (a) ensure smoke alarms complying with AS 3786:2014 are installed on or near the ceiling in every bedroom and in every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building as required by the Building Code;
  - (b) ensure that there is installed in each passage or corridor in the lodging house a smoke alarm incorporating evacuation lighting which is activated by the smoke alarm as required by the Building Code;
  - (c) evacuation lighting shall be kept separate from the general lighting system and kept illuminated during the hours of darkness;
  - (d) provide an approved fire blanket positioned within 2 metres of the cooking area in each kitchen;
  - (e) ensure that illuminated exit signs are installed above exit doorways which comply with AS 2293.1:2005 and which are maintained in good working order at all times; and
  - (f) provide firefighting equipment in accordance with the requirements of the Building Code and that the equipment is clearly visible, accessible and maintained in good working order at all times.
- (2) A keeper shall ensure that all buildings comprising the lodging house are fitted with fire protection equipment as required by the Building Code.

- (3) No person shall smoke in any dormitory, kitchen or dining room or other enclosed public place within a lodging house.
- (4) A keeper shall ensure that any items which are likely to cause a fire hazard are not located within bedrooms or dormitories of a lodging house.
- (5) The keeper of a lodging house which is a recreational campsite or short-term hostel, but not a serviced apartment, shall ensure that—
  - (a) materials used in bedrooms and dormitory area comply with AS1530.2 : 1993 and AS 1530.3:1995 as follows—
    - (i) drapes, curtains and blinds:
      - i. a maximum flammability index of 6;
    - (ii) flammable furniture, upholstery and beds:
      - i. a maximum spread of flame index of 6;
      - ii. a maximum smoke developed index of 5;
    - (iii) floor coverings:
      - i. a maximum spread of flame index of 7;
      - ii. a maximum smoke developed index of 5;
  - (b) Fire retardant coatings used to make a material comply with these indices must be—
    - (i) certified by the manufacturer as approved for used with the fabric to achieve the required indices;
    - (ii) certified by the manufacturer to retain its fire retardancy effect after a minimum of 5 commercial dry cleaning or laundering operations carried out in accordance with AS 2001.5.4-2005, and
    - (iii) certified by the applicator as having been carried out in accordance with the manufacturer's specification.

#### **8.17 Obstruction of passages and stairways**

A keeper shall not cause, suffer or permit furniture, fittings or other things to be placed either temporarily or permanently in or on—

- (a) a stairway, stair landing, fire escape, window or common passageway; or
- (b) part of the lodging house in common use or intended or adapted for common use.

#### **8.18 Fitting of locks**

A person shall not fit, or cause or permit to be fitted, to an exit door a lock or other device that prevents the door being opened from within a lodging house.

#### **8.19 Restriction on use of rooms for sleeping**

- (1) Subject to subclause (3) and clause 8.34, a keeper shall not use or permit to be used as a sleeping apartment a room in a lodging house –
  - (a) which contains food;
  - (b) which contains or is fitted with a cooking appliance or kitchen sink;
  - (c) which is used as a kitchen, scullery, store room, dining room, general sitting room or lounge room or for the preparation or storage of food;
  - (d) which is not reasonably accessible without passing through a sleeping or other room in the private occupation of another person;
  - (e) which, except in the case of a short term hostel or a recreational campsite, contains less than 5 square metres of clear space for each lodger occupying the room;
  - (f) which is not naturally illuminated in accordance with the requirements of the Building Code;



- (g) which is not ventilated in accordance with the requirements of the Building Code;
  - (h) in which the lighting or ventilation referred to in paragraphs (f) and (g) is obstructed or is not in good and efficient order;
  - (i) which is not free from internal dampness;
  - (j) of which any part of the floor is below the level of the adjoining ground; or
  - (k) the floor of which is not fitted with an approved carpet or vinyl floor covering or other floor treatment approved by an Environmental Health Officer.
- (2) For the purposes of this clause, two children under the age of 10 years shall be counted as one lodger.
- (3) Paragraphs (a), (b) and (c) of subclause (1) shall not apply to a serviced apartment.

#### **8.20 Sleeping accommodation short term hostels and recreational campsites**

- (1) A keeper of a short term hostel or recreational campsite shall provide clear floor space of not less than—
- (a) 4 square metres per person in each dormitory utilising beds; and
  - (b) 2.5 square metres per person in dormitories utilising bunks.
- (2) The calculation of floor space in subclause (1) shall exclude the area occupied by any large items of furniture, such as wardrobes, but may include the area occupied by beds.
- (3) The minimum height of any ceiling in a short term hostel or recreational campsite shall be 2.4 metres in any dormitory utilising beds and 2.7 metres in any dormitory utilising bunks.
- (4) The minimum floor area requirements in subclause (1) will only apply if there is ventilation, separation distances, fire egress and other safety requirements in accordance with the Building Code.
- (5) The keeper of any short term hostel or recreational campsite shall provide:
- (a) fixed outlet ventilation at a ratio of 0.15 square metre to each 10 square metres of floor area of the dormitories. Dormitories shall be provided with direct ventilation to the open air from a point within 230 millimetres of the ceiling level through a fixed open window or vents, carried as direct to the open air as is practicable; or
  - (b) mechanical ventilation in lieu of fixed ventilation.
- (6) The keeper of any short term hostel or recreational campsite shall provide beds with a minimum size of—
- (a) in short term hostels – 800 millimetres x 1.9 metres; or
  - (b) in recreational campsites – 750 millimetres x 1.85 metres; and
  - (c) storage space for personal effects, including backpacks, so that cleaning operations are not hindered and access spaces are not obstructed.
- (7) The keeper of any short term hostel or recreational campsite shall—
- (a) ensure at all times there is a distance of 750 millimetres between beds and a distance of 900 millimetres between bunks;
  - (b) ensure that where bed or bunk heads are placed against the wall on either side of a dormitory, there is a passageway of at least 1.35 metres between each row of beds and a passageway of at least 2 metres between each row of bunks and the passageway is kept clear of obstruction at all times; and
  - (c) ensure all doors, windows and ventilators are kept free from obstruction.

**8.21 Furnishing etc. of sleeping apartments**

A keeper shall—

- (a) furnish each sleeping apartment with a sufficient number of beds and sufficient bed linen of good quality; and
- (b) ensure that each bed—
  - (i) has a bed head, mattress and pillow;
  - (ii) is provided with a pillow case, two sheets, a blanket or rug and, in cold weather, not less than one additional blanket or rug; and
  - (iii) has a mattress protector fitted.
- (c) furnish each bedroom so that there are adequate storage facilities for belongings within the room.
- (d) not cause, suffer or permit any tiered beds or bunks to be used in a sleeping apartment other than in a lodging house used exclusively as a short term hostel or recreational campsite.

**8.22 Ventilation**

If, in the opinion of an Environmental Health Officer, a kitchen, bathroom, toilet, laundry or habitable room is not adequately or properly ventilated, he or she may direct the keeper to provide a different or additional method of ventilation.

**8.23 Numbers to be placed on doors**

- (1) A keeper shall number each room available to a lodger or provide an alternative means of identification approved by an Environmental Health Officer.
- (2) The numbering system or alternative means of room identification is to be legible and easily identified.

*Division 3 – Management and Care*

**8.24 Keeper or manager to reside in the lodging house**

Whenever there are one or more lodgers in a lodging house, a keeper or manager shall—

- (a) reside continuously in the lodging house; and
- (b) not be absent from the lodging house for more than 48 consecutive hours unless he or she arranges for a reputable person to have the care and management of the lodging house.

**8.25 Register of lodgers**

- (1) A keeper shall keep a register of lodgers in the form of Schedule 4.
- (2) The register of lodgers shall be—
  - (a) kept in the lodging house; and
  - (b) available for inspection at any time on demand by any member of the Police Service or by an Environmental Health Officer.

**8.26 Keeper report**

A keeper shall, whenever required by the local government, provide, in the form of Schedule 5, the name of each lodger who lodges in the lodging house during the preceding day or night.

**8.27 Certificate in respect of sleeping accommodation**

- (1) An Environmental Health Officer may issue to a keeper a certificate, in respect of each room, which shall be in the form of Schedule 6 or 7.
- (2) The certificate issued under subclause (1) shall specify the maximum number of persons who shall be permitted to occupy each room as a sleeping apartment at any one time.
- (3) When required by an Environmental Health Officer, a keeper shall exhibit the certificate issued under this clause in a conspicuous place in the room to which the certificate refers.
- (4) A person shall not allow a greater number of persons than is specified on a certificate issued under this clause to occupy the room to which it refers.

**8.28 Duplicate keys and inspection**

Each keeper and manager of a lodging house shall—

- (a) retain possession of a duplicate key to the door of each room; and
- (b) when required by an Environmental Health Officer, open the door of any room for the purpose of inspection by the Environmental Health Officer.

**8.29 Room occupancy**

- (1) A keeper shall not –
  - (a) allow more than the maximum number of persons permitted by the Certificate of Registration of the lodging house to be lodged at any one time in the lodging house;
  - (b) allow to be placed or kept in any sleeping apartments –
    - (i) a larger number of beds; or
    - (ii) a larger quantity of bed linen than is required to accommodate and provide for the maximum number of persons permitted to occupy the sleeping apartment at any one time; and
  - (c) allow to be used for sleeping purposes, a room that –
    - (i) has not been certified for that purpose; and
    - (ii) the local government or the Medical Officer has forbidden to be used as a sleeping apartment.
- (2) For the purpose of this clause, two children under 10 years of age shall be counted as one lodger.

**8.30 Infectious disease**

A keeper shall immediately after becoming aware that a lodger or resident is suffering from a notifiable infectious disease notify an Environmental Health Officer.

**8.31 Maintenance of a room by a lodger or resident**

- (1) A keeper may permit, or contract with, a lodger or resident to service, clean or maintain the room or rooms occupied by the lodger or resident.
- (2) Where permission is given or a contract entered into under subclause (1), the keeper shall—
  - (a) inspect each room the subject of the permission or agreement at least once a week; and
  - (b) ensure that each room is being maintained in a clean condition.
- (3) A lodger or resident who contracts with a keeper to service, clean or maintain a room occupied by him or her, shall maintain the room in a clean condition.

**8.32 Cleaning and maintenance requirements**

A keeper of a lodging house shall—

- (a) maintain in a clean, sound and undamaged condition—
  - (i) the floor, walls, ceilings, woodwork and painted surfaces; and
  - (ii) the floor coverings and window treatments; and
  - (iii) the toilets, including toilet seats, cisterns and associated plumbing; and
- (b) maintain in a clean and in good working order—
  - (i) all fixtures and fittings; and
  - (ii) all windows, doors and door furniture; and
  - (iii) ensure that the internal walls of each bathroom and toilet have a smooth, impervious washable surface; and
  - (iv) ensure that all floors are kept clean at all times; and
- (c) ensure that—
  - (i) all bed linen, towels, and house linen in use is washed at least once a week; and
  - (ii) within a reasonable time of a bed having been vacated by a lodger or resident, the bed linen is removed and washed; and
  - (iii) a person does not occupy a bed which has been used by another person unless the bed has been provided with clean bed linen; and
  - (iv) all beds, bedsteads, blankets, rugs, covers, bed linen, towels and house linen are kept clean, in good repair and free from vectors of disease; and
  - (v) when any vectors of disease are found in a bed, furniture, room or sleeping apartment, immediate effective action is taken to eradicate the vectors of disease; and
  - (vi) a room which is not free from vectors of disease is not used as a sleeping apartment; and
- (d) when so directed by an Environmental Health Officer, ensure that—
  - (i) a room, together with its contents, and any other part of the lodging house, is cleaned and disinfected; and
  - (ii) a bed, or other article of furniture that is infested is removed from the lodging house and properly disposed of; and
  - (iii) ensure that the yard is kept clean at all times; and
  - (iv) provide all bedrooms, passages, common areas, toilets, bathrooms and laundries with adequate lighting; and
  - (v) comply with any direction, whether orally or in writing, given by an Environmental Health Officer.

**8.33 Responsibilities of lodgers and residents**

A lodger or resident shall not—

- (a) use any room available to lodgers—
  - (i) as a shop, store or factory; or
  - (ii) for manufacturing or trading services; or
  - (iii) keep or store in or on the lodging house any goods or materials which are inflammable, obnoxious or offensive; or
  - (iv) use a bath or wash hand basin other than for ablutionary purposes; or
  - (v) use a bathroom facility or fitting for laundry purposes; or
  - (vi) use a sink installed in a kitchen or scullery for any purpose other than the washing and cleaning of cooking and eating utensils, other kitchenware or culinary purposes; or
  - (vii) deposit rubbish or waste food other than into a proper rubbish receptacle; and
- (b) in a kitchen or other place where food is kept—
  - (i) wash or permit the washing of clothing or bed linen; or
  - (ii) keep or permit to be kept any soiled clothing or bed linen; and

- (c) subject to clause 8.34 —
  - (i) keep, store, prepare or cook food in any sleeping apartment; or
  - (ii) unless sick or invalid and unable to leave a sleeping apartment for that reason, use a sleeping apartment for dining purposes; or
  - (iii) place or keep, in any part of a lodging house, any luggage, clothing, bedding, bed linen or furniture, that is infested with vermin or vectors of disease; and
- (d) store or keep such a quantity of furniture, material or goods within the lodging house—
  - (i) in any kitchen, living or sleeping apartment so as to prevent the cleaning of the floors, walls, fittings or fixtures; or
  - (ii) in a sleeping apartment so as to decrease the air space to less than the minimum required by this Part; or
  - (iii) obstruct or prevent the keeper or manager from inspecting or examining the room or rooms occupied by the lodger or resident; or
  - (iv) fix any fastener or change any lock to a door or room without the written approval of the keeper.

#### 8.34 Approval for the storage of food

- (1) An Environmental Health Officer may—
  - (a) upon written application from a keeper, approve the storage of food within a refrigerator or sealed container in a sleeping apartment; and
  - (b) withdraw the approval if any nuisance, vector of disease, vermin or infestation is found to exist in the lodging house.
- (2) The keeper of a serviced apartment may permit the storage and consumption of food within that apartment if suitable storage and dining facilities are provided.

### PART 9 – OFFENSIVE TRADES

#### *Division 1 – General*

#### 9.1 Interpretation

In this part, unless the context otherwise requires—

**occupier** in relation to premises includes the person registered as the occupier of the premises in the Schedule 12 Certificate of Registration;

**offensive trade** means any trade as defined by section 186 of the Act; and

**premises** includes houses.

#### 9.2 Consent to establish an offensive trade

- (1) A person seeking the consent of the local government under section 187 of the Act to establish an offensive trade shall—
  - (a) advertise notice of his intention to apply for consent in accordance with clause 9.3; and
  - (b) lodge with the Chief Executive Officer an application in the form of Schedule 10.
- (2) A person who makes a false statement in an application under this clause shall be guilty of an offence.



### 9.3 Notice of application

A notice required under subclause 9.2(1) (a) shall—

- (a) contain the name and address of the person who intends to make the application; and
- (b) contain a description of the nature of the offensive trade; and
- (c) contain details of the premises in or upon which it is proposed to carry on the proposed trade; and
- (d) appear in a local newspaper at least two weeks but not more than one month before the application under clause 9.2 (1) (b) is lodged with the Chief Executive Officer.

### 9.4 Registration of premises

An application for the registration of premises pursuant to section 191 of the Act shall be—

- (a) in the form of Schedule 11; and
- (b) accompanied by:
  - (i) the fee prescribed in the *Offensive Trade (Fees) Regulations 1976*; and
  - (ii) a comprehensive management plan; and
- (c) lodged with the Chief Executive Officer.

### 9.5 Certificate of registration

Upon the registration of premises for the carrying on of an offensive trade, the local government shall issue to the applicant a certificate in the form of Schedule 12.

### 9.6 Change of occupier

Where there is a change of occupier of the premises registered pursuant to this Division, the new occupier shall forthwith notify the Chief Executive Officer in writing of such change.

### 9.7 Alterations to premises

While any premises remain registered under this Division, a person shall not, without the written permission of the local government, make or permit any change or alteration whatever to the premises.

### 9.8 Occupier includes employee

Where in any clause contained in this Part a duty is imposed upon the occupier of premises in or upon which an offensive trade is carried on, the reference to the occupier shall be interpreted to include the employees of the occupier and any employee committing a breach of any provision of this Part shall be liable to the same penalties as if he or she were the occupier.

## *Division 2 – General Duties of an Occupier*

### 9.9 Interpretation

In this Division, unless the context otherwise requires—

**occupier** means the occupier, or where there is more than one occupier, each of the occupiers of the premises in or upon which an offensive trade is carried on; and

**premises** means those premises in or upon which an offensive trade is carried on.

**9.10 Cleanliness**

The occupier shall—

- (a) keep or cause to be kept in a clean and sanitary condition and in a state of good repair the floors, walls and ceilings and all other portions of the premises;
- (b) keep or cause to be kept in a clean and sanitary condition and in a state of good repair all fittings, fixtures, appliances, machinery, implements, shelves, counters, tables, benches, bins, cabinets, sinks, drain boards, drains, grease traps, tubs, vessels and other things used on or in connection with the premises;
- (c) keep the premises free from any unwholesome or offensive odour arising from the premises;
- (d) maintain in a clean and tidy condition all yards, footpaths, passage ways, paved areas, stores or outbuildings used in connection with the premises; and
- (e) clean daily and at all times keep and maintain all sanitary conveniences and all sanitary fittings and grease traps on the premises in a clean and sanitary condition.

**9.11 Rats and other vectors of disease**

The occupier shall—

- (a) ensure that the premises are kept free from vermin, rodents, cockroaches, flies and other vectors of disease; and
- (b) provide in and on the premises effective means and methods for the eradication and prevention of vermin, rodents, cockroaches, flies and other vectors of disease.

**9.12 Sanitary conveniences and wash basins**

The occupier shall provide on the premises in an approved position sufficient sanitary conveniences and wash hand basins, each with an adequate supply of hot and cold water for use by employees and by all other persons lawfully upon the premises.

**9.13 Painting of walls etc.**

The occupier shall cause the internal surface of every wall, the underside of every ceiling or roof and all fittings as may be directed in and on the premises to be cleaned and painted when instructed by an Environmental Health Officer.

**9.14 Effluvia, vapours or gases**

The occupier shall provide, use and maintain in a state of good repair and working order, appliances capable of effectively destroying or of rendering harmless all offensive effluvia, vapours or gases arising in any process of his or her business or from any material, residue or other substance which may be kept or stored upon the premises.

**9.15 Offensive material**

The occupier shall—

- (a) provide on the premises impervious receptacles of sufficient capacity to receive all offensive material and trade refuse produced upon the premises in any one day;
- (b) keep airtight covers on the receptacles, except when it is necessary to place something in or remove something from them;
- (c) cause all offensive material and trade refuse to be placed immediately in the receptacles;
- (d) cause the contents of the receptacles to be removed from the premises at least once in every working day or other interval as may be directed by an Environmental Health Officer; and

- (e) cause all receptacles after being emptied to be cleaned immediately with an efficient disinfectant.

#### 9.16 Storage of materials

The occupier shall cause all material on the premises to be stored so as not to be offensive or injurious to health whether by inhalation or otherwise and so as to prevent the creation of a nuisance.

#### 9.17 Directions

An Environmental Health Officer may give to the occupier directions to prevent or diminish the offensiveness of a trade or to safeguard the public health.

### *Division 3 – Fat Rendering Establishments*

#### 9.18 Interpretation

In this Division, unless the context otherwise requires—

***fat rendering establishments*** means a premises where edible fats including suet, dripping or premier jus are rendered down by any heat processing method; and

***occupier*** means the occupier of any premises on which the trade of fat rendering is carried on.

#### 9.19 Ventilation

The occupier shall provide and maintain—

- (a) a hood which shall—
  - (i) be of an approved design and construction;
  - (ii) be situated so as to arrest all effluvia, odours and smoke from the process of fat rendering; and
  - (iii) extend a minimum of 150 millimetres beyond the length of each appliance; and
- (b) an exhaust ventilation system—
  - (i) the point of discharge of which shall be at least 1 metre above the ridge of a pitched roof or 3 metres above a flat roof and shall not be located within 6 metres of an adjoining property or any fresh air intake; and
  - (ii) which shall discharge in such manner and in such a position that no nuisance is created.

#### 9.20 Covering of apparatus

External parts of the fat rendering apparatus shall be constructed or covered with smooth, non-corrosive and impervious material, devoid of holes, cracks and crevices.

#### 9.21 Rendering of walls

The occupier shall cause each wall within a radius of 3 metres of the rendering apparatus or machinery to be rendered with a cement plaster with a steel float finish or other approved finish to a height of 2 metres, devoid of holes, cracks and crevices.

*Division 4 – Fish Premises***9.22 Interpretation**

In this Division, unless the context otherwise requires—

**appliance** includes a utensil, an instrument, a cover, a container or apparatus;

**fish** means fresh fish, frozen fish, chilled fish and cooked fish, whether cleaned, uncleaned or part cleaned and includes crustaceans and molluscs but does not include –

- (a) fish which has been cured, preserved, hermetically canned or treated to prevent putrefaction; or
- (b) cleaned fish supplied in cartons or packets by a packer and sold in such cartons or packets if they are at all times kept in a deep freeze refrigeration unit at a temperature not exceeding minus 15 degrees Celsius;

**fish premises** includes fish processing establishments, fish curing establishments and shellfish and crustacean processing establishments but does not include retail fish shops in which no significant fish processing occurs;

**fish transport vehicle** includes—

- (a) an appliance attached to, carried in or used in connection with a vehicle; and
- (b) a trailer and a portable box, used or designed to be used for the transport or storage of fish; and

**portable box** means a box for the transport or storage of fish and includes a fish transport vehicle.

**9.23 Fish preparation room**

- (1) The occupier of a fish premises which requires a fish processing or preparation room shall ensure that this room complies with the following requirements—
  - (a) the walls shall be constructed of brick or concrete with the internal surface rendered with a cement plaster with a steel float finish or other approved material and shall be devoid of holes, cracks and crevices;
  - (b) the floor shall be of concrete with a smooth, durable surface and shall be treated with an approved surface hardening process;
  - (c) the minimum floor area shall be 9 square metres;
  - (d) the room shall be furnished with a wash hand basin connected to a piped supply of hot and cold water; and
  - (e) the room shall be fly proofed and provided with adequate light and ventilation.
- (2) The occupier shall ensure that all fish are prepared in the fish processing or preparation room and that room is to be used solely for that purpose.
- (3) The occupier of a fish premises shall provide, in or easily accessible from each fish preparation room, cleaning facilities consisting of a double bowl stainless steel wash trough of adequate size to accommodate the equipment and utensils used on the premises, connected to a piped supply of hot and cold water.

**9.24 Bench**

The occupier of a fish premises shall provide and maintain on the premises a separate stainless steel bench for the handling of fish.

**9.25 Disposal of waste**

The occupier of a fish premises shall cause all offal and wastes, all rejected and unsaleable fish and any rubbish or refuse which is likely to be offensive or a nuisance to be—

- (a) placed in the receptacles referred to in clause 9.26 and disposed of in accordance with that clause; or
- (b) kept in a frozen state in an approved enclosure before its removal from the premises.

**9.26 Fish containers**

The occupier of a fish premises shall not allow any box, basket or other container used for the transport of fish to—

- (a) remain on the premises longer than is necessary for it to be emptied; or
- (b) be kept so as to cause a nuisance or to attract flies.

**9.27 Cooking of fish**

Where cooking of fish is carried out in a fish premises, the occupier shall provide and maintain—

- (a) a hood, which shall be of an approved design and construction in accordance with the requirements of AS 1668.2 and so situated as to capture and remove all effluvia, odours and smoke from the process of cooking; and
- (b) an exhaust ventilation system—
  - (i) the point of discharge of which shall be at least 1 metre above the ridge of a pitched roof or 3 metres above a flat roof and shall not be located within 6 metres of an adjoining property or any fresh air intakes; and
  - (ii) which shall discharge in such manner and in such a position that no nuisance is created.

**9.28 Use of an approved portable box**

An Environmental Health Officer may permit an approved portable box to be used for the transport or storage of fish.

**9.29 Fish transport vehicle**

A person shall not use a fish transport vehicle for the transport or storage of fish unless it is so constructed, equipped and maintained that—

- (a) the frame is made of metal or other approved material;
- (b) all internal surfaces—
  - (i) are made of metal or approved impervious plastic substance, which may include stainless steel, aluminium galvanised iron, fibreglass, or other material of similar strength and impermeable qualities;
  - (ii) are smoothly finished;
  - (iii) are rigidly secured with a solid backing; and
  - (iv) have floor and vertical angles coved with not less than a 9.5 millimetre radius, but, if all necessary floor joints are effectively sealed, the surface of the floor, or part of it, may be of an approved tread type track material;
- (c) internal horizontal joints made between metal sheeting are lapped from top to bottom and either—
  - (i) continuously welded; or
  - (ii) lapped with a minimum of 40 millimetres cover secured with blind rivets and sealed with a durable, non-absorbent sealing material;



- (d) the vehicle is effectively insulated with a stable insulating material;
- (e) the vehicle has, at the rear or side, doors that are made in the manner provided by paragraphs (a), (b), (c) and (d) of this clause, are close fitting, and have a suitable locking device fitted;
- (f) the vehicle is fitted with shelves and grids, made of impervious material, in such a manner that the shelves and grids may be easily removed;
- (g) any containers used in the vehicle for fish are made of stainless steel, fibreglass or approved impervious plastic; and
- (h) the vehicle is in good repair and condition and is thoroughly clean.

*Division 5 – Laundries, Dry Cleaning Establishments and Dye Works*

### 9.30 Interpretation

In this Division, unless the context otherwise requires—

***dry cleaning establishment—***

- (a) means premises where clothes or other articles are cleaned by use of solvents without using water; but
- (b) does not include premises in which perchlorethylene or arklone is used as dry cleaning fluid in a machine operating on a full cycle and fully enclosed basis.

***dye works*** means a place where articles are commercially dyed, but does not include dye works in which provision is made for the discharge of all liquid waste therefrom into a public sewer;

***exempt laundromat*** means a premises in which—

- (a) laundering is carried out by members of the public using, on payment of a fee, machines or equipment provided by the owners or occupiers of those establishments;
- (b) laundering is not carried out by those owners or occupiers for or on behalf of other persons; and
- (c) provision is made for the discharge of all liquid waste therefrom into a public sewer;

***laundromat*** means a public place with coin or card operated washing machines, spin dryers or dry cleaning machines; and

***laundry*** means any place where articles are laundered by commercial grade machinery but does not include an exempt laundromat.

### 9.31 Receiving depot

An owner or occupier of premises shall not use or permit the premises to be used as a receiving depot for a laundry, dry cleaning establishment or dye works except with the written permission of the Principal Environmental Health Officer who may at any time by written notice withdraw such permission.

### 9.32 Reception room

- (1) The occupier of a laundry, dry cleaning establishment or dye works shall—
  - (a) provide a reception room in which all articles brought to the premises for treatment shall be received and shall not receive or permit to be received any such articles except in that room; and
  - (b) cause such articles as may be directed by an Environmental Health Officer to be thoroughly disinfected.

- (2) A person shall not bring or permit food to be brought into the reception room referred to in this clause.

### 9.33 Walls and floors

The occupier of a laundry, dry cleaning establishment or dye works shall cause—

- (a) the internal surfaces of all walls to be rendered with a cement plaster with a steel float finish or other approved material to a height of 2 metres and to be devoid of holes, cracks and crevices;
- (b) the floor to be impervious, constructed of concrete or other material approved by an Environmental Health Officer and finished to a smooth surface; and
- (c) every floor and wall of any building on the premises to be kept at all times in good order and repair, so as to prevent the absorption of any liquid which may be splashed or spilled or may fall and be deposited on it.

### 9.34 Laundry floor

The occupier of a laundry shall provide in front of each washing machine a non-corrosive grating, with a width of at least 910 millimetres, so constructed as to prevent any person from standing in water on the floor.

### 9.35 Escape of dust

The occupier of a dry cleaning establishment shall provide effective means to prevent the escape into the open air of all dust or other material from the premises.

### 9.36 Precautions against combustion

The occupier of a dry cleaning establishment where volatile liquids are used shall take all proper precautions against combustion and shall comply with all directions given by an Environmental Health Officer for that purpose.

### 9.37 Trolleys

The occupier of a dry cleaning establishment shall—

- (a) provide trolleys for the use of transporting dirty and clean linen; and
- (b) ensure that each trolley is—
  - (i) clearly designated to indicate the use for which it is intended;
  - (ii) lined internally with a smooth impervious non-absorbent material that is easily cleaned; and
  - (iii) thoroughly cleaned and disinfected on a regular basis.

### 9.38 Sleeping on premises

A person shall not use or permit any room in a laundry, dry cleaning establishment or dye works to be used for sleeping purposes.

## Division 6 – Abattoirs

### 9.39 Construction

An abattoir shall conform to relevant Standards as adopted under the *Food Act 2008* section 144 (6) and the requirements of Part 5 of the *Food Regulations 2009*.

*Division 7 – Piggeries***9.40 Interpretation**

In this Division, unless the context otherwise requires:

**piggery** means any building, enclosure or yard, in which one or more pigs are kept, bred, reared or fattened for purposes of trade, and shall include any portion of the premises to which pigs have access.

**9.41 Limitations to registration**

No premises shall be registered as a piggery unless every portion of such piggery is—

- (a) greater than 200 metres from the lot boundary of the lot upon which the piggery is to be situated;
- (b) greater than 100 metres from any dwelling house, dairy or other premises where food for human consumption is prepared, stored or sold;
- (c) outside the gazetted townsites of Bindoon, Muchea and Wannamal and an area of 3km wide surrounding and contiguous to the boundaries of each of these townsites; and
- (d) outside that land described as being part of the rural residential zones in the Shire of Chittering Town Planning Scheme and an area 1km wide surrounding and contiguous to the boundaries of the rural residential zones.

**9.42 Conditions of registration**

Any person intending to establish a piggery within the district shall ensure the application made in the form of Schedule 10 is accompanied by plans and specifications in duplicate of the proposed piggery including—

- (a) details of the approximate number of pigs to be kept.
- (b) details of the drainage and effluent disposal system to be installed; and
- (c) details of the method by which cleanliness of the piggery shall be maintained.

**9.43 Sties, enclosures or sheds**

- (1) The occupier of every piggery shall provide either—
  - (a) sties and enclosures;
  - (b) enclosures; or
  - (c) shedswithin which pigs shall be kept.
- (2) Where sties and enclosures are provided—
  - (a) the floor of every sty shall be properly paved with impervious materials, and every such floor shall have sufficient fall to a surface gutter, which shall—
    - (i) be constructed of similar materials;
    - (ii) be not less than 300 millimetres wide and 75 millimetres deep in the centre of its width;
    - (iii) extend the whole length of the sty; and
    - (iv) have sufficient fall so that it shall discharge all liquids falling upon the floor or upon the gutter into an impervious sump of sufficient capacity to receive at least one day's drainage.
  - (b) the area of every enclosure appurtenant to a sty or group of sties shall be not less than three times the area of the sty or group of sties to which it is appurtenant.

- (3) Where enclosures only are provided, then—
  - (a) the fences of such enclosures shall be movable; and
  - (b) the fences shall be moved and re-erected to enclose a new site whenever—
    - (i) the ground within a site is becoming offensive; or
    - (ii) the occupier is directed to do so by an Environmental Health Officer.
- (4) Where sheds are provided, then—
  - (a) the floor of the shed shall comply with subclause 2(a);
  - (b) all buildings and yards shall be maintained in a structurally sound and clean condition free of infestation with flies and other vectors of disease; and
  - (c) drainage and treatment of effluent waste shall be carried out and maintained so as to prevent a nuisance.

#### **9.44 Slaughtering**

The occupier of any piggery shall not permit any slaughtering of animals on the premises.

#### **9.45 Feed**

The occupier of any piggery shall—

- (a) not receive, or allow to be received on such premises, any carcass or part of a carcass of a diseased animal;
- (b) not feed the pigs upon the flesh or offal of diseased animals;
- (c) not receive or suffer or permit to be received on the premises, putrid matter for any purpose; and
- (d) not receive or suffer or permit to be received on the premises, any kitchen, slaughter-house or butcher's wastes or other putrescible pig feed.

#### **9.46 Fencing**

Every piggery occupier shall securely fence all the enclosures.

#### **9.47 Water supply**

Every piggery occupier shall provide a sufficient and constant supply of clean water, which shall be properly protected against pollution and always available for cleansing purposes.

#### **9.48 Feeding troughs**

- (1) Every such occupier shall:
  - (a) where sties and enclosures are provided under the provisions of clause 9.43(2), provide feeding troughs in every sty, situated near to the drainage gutter or positioned to be accessible to the pigs in two or more sties or enclosures;
  - (b) where enclosures are provided under the provisions of clause 9.43(3), provide feeding troughs in every such enclosure;
  - (c) cause all feeding troughs, other than those provided in connection with movable enclosures, to be fixed upon a cement or concrete floor extending 1.2 metres in all directions from such trough, and designed to permit ready drainage; and
  - (d) not permit pigs to be fed other than at the feeding troughs provided in accordance with this clause;

- (2) Notwithstanding the provisions of subclause (1), where pigs are kept continually confined in fully enclosed pens, floor feeding with pellets or dry meal shall be permitted, in which case feeding troughs are not required to be provided.

## **PART 10 – OFFENCES AND PENALTIES**

### **10.1 Offences and penalties**

- (1) A person who contravenes a provision of this local law commits an offence.
- (2) A person who commits an offence under subclause (1) is liable to:
- (a) a penalty which is not more than \$2,500 and not less than:
    - (i) in the case of a first such offence, \$250;
    - (ii) in the case of a second such offence, \$500; and
    - (iii) in the case of a third or subsequent such offence, \$1,250 and
  - (b) if the offence is a continuing offence, a daily penalty which is not more than \$250 and not less than \$125.

### **10.2 Other enforcement actions**

- (1) In addition to a penalty imposed under clause 10.1, any expense incurred by the local government in consequence of a breach or non-observance of this local law, in the execution of work directed to be executed by any person and not executed by him or her, must be paid by the person committing the breach for failing to execute the work.
- (2) On a breach, or successive breaches, by a licensee or a person registered under this local law, the local government may suspend or cancel the licence or registration as the case may be.



**SCHEDULE 1**  
**APPLICATION FOR REGISTRATION OF A LODGING HOUSE**

(Clause 8.3)

Shire of Chittering  
Health Act 1911

To: Chief Executive Officer  
Shire of Chittering

I/We, .....  
(Full name of Applicant/s)

of .....  
.....  
(Residential Address of Applicant/s)

apply for the registration of premises situated (or to be situated) at

as a lodging house to be classified as:

- ☐ a lodging house;
- ☐ a short term hostel;
- ☐ serviced apartments;
- ☐ a recreational campsite; or
- ☐ other, (specify).

and for my name to be entered in the Register as the keeper of the lodging house

**DESCRIPTION OF LODGING HOUSE**

Number of storeys .....

**Rooms for private use**

	Number	Area
Laundries/toilets/bathrooms	.....	.....
Bedrooms	.....	.....
Dining Rooms	.....	.....
Kitchens	.....	.....
Sitting Rooms	.....	.....
Other (Specify)	.....	.....

**Rooms for lodgers**

	Number	Area
Bedroom	.....	.....
Dining Rooms	.....	.....
Kitchens	.....	.....
Sitting Rooms	.....	.....
Other (Specify)	.....	.....

**Sanitary Conveniences for male lodgers**

	Number
Toilets	.....
Urinals	.....
Baths	.....
Showers	.....
Wash hand basins	.....

**Sanitary Conveniences for female lodgers**

	Number
Toilets	.....
Baths	.....
Showers	.....
Wash hand basins	.....

**Laundry Facilities**

	Number
Coppers	.....
Wash troughs	.....
Washing machines	.....
Drying cabinets or clothes lines	.....

**Additional Details**

- (a) Lodgers' meals will be provided by the manager/keeper/lodgers.
- (b) The keeper will/will not reside continuously on the premises.
- (c) Name and occupation of proposed manager if keeper resides elsewhere:  
 .....
- (d) There will be.....family members residing on the premises with the keeper/manager.

Application fee of \$.....is attached.

.....  
 (Signature of Applicant/s)

.....  
 (Date)

**SCHEDULE 2**  
**CERTIFICATE OF REGISTRATION OF A LODGING HOUSE**

(Clause 8.4)

*Shire of Chittering*  
 Health Act 1911

THIS is to certify that the premises situated at

.....

..... are registered as Lodging

House and classified as:

- ☐ a lodging house
- ☐ a short term hostel
- ☐ serviced apartments
- ☐ a recreational campsite
- ☐ other (specify)

until 30 June 20....., on the following conditions:

1. that ....., whose name is entered on the register of keepers of the Shire of Chittering, continues to be the keeper of the lodging house;
2. that ....., appointed by the keeper to be the manager of the lodging house, continues to be the manager of the lodging house;
3. that the Certificate of Registration is not sooner cancelled or revoked;

That the maximum number of rooms to be used as sleeping apartments for lodgers is:

4. ....; and
5. that the maximum number of lodgers accommodated on the premises shall not exceed.....

This Certificate of Registration is issued subject to the Health Act and Health Local Law of the Shire of Chittering and is not transferable.

Dated ..... 20.....

Fee received: \$.....

.....

Signature  
 Principal Environmental Health Officer  
 Shire of Chittering

**SCHEDULE 3**  
**NOTICE OF CHANGE OF OWNER OF A LODGING HOUSE**

(Clause 8.6)

*Shire of Chittering*  
Health Act 1911

To: Chief Executive Officer  
Shire of Chittering

I/We, .....  
(Full name of Applicant/s)

of .....  
.....  
(Residential Address of Applicant/s)

am/are the new owner/s of premises situated  
at .....

which are registered in the name of .....

for the carrying on of the lodging house business.

.....  
Signature of Applicant/s

.....  
Date

SCHEDULE 4  
REGISTER OF LODGERS

(Clause 8.25)

Shire of Chittering  
Health Act 1911

Location of Lodging House:

.....

.....

Date of	Previous	Room	Date of Arrival
Name	.....	.....	.....
Address	.....		
Signature	.....		
No.	.....		
Departure	.....		
.....			
.....			
.....			

.....

.....

Signature of Keeper

Date



**SCHEDULE 5  
LIST OF LODGERS**

*(Clause 8.26)*

*Shire of Chittering*  
Health Act 1911

The following is the name of every person who resided in the lodging house at

.....  
.....  
.....  
.....  
.....

on the ..... day of ..... 20.....

.....  
Signature of Keeper

.....  
Date

**SCHEDULE 6**  
**CERTIFICATE OF SLEEPING ACCOMMODATION**

*(Clause 8.27)*

*Shire of Chittering*  
Health Act 1911

To.....  
(Name of Keeper)

of.....  
(Address of Keeper)

For the registered lodging house situated at:

.....  
.....  
.....

This room, No. ...., can be used as a sleeping apartment (for sleeping purposes only) to accommodate not more than ..... persons at any one time.

.....  
Signature of Principal Environmental Health Officer

.....  
Date

**SCHEDULE 7**  
**CERTIFICATE OF SLEEPING ACCOMMODATION FOR A LODGING HOUSE WITH MORE THAN 20**  
**SLEEPING APARTMENTS**

(Clause 8.27)

*Shire of Chittering*  
 Health Act 1911

To.....  
 (Name of Keeper)

of.....  
 (Address of Keeper)

for the registered lodging house situated at .....  
 .....  
 .....

The rooms listed below are not to be occupied by more than the number of lodgers or residents indicated below.

<u>ROOM NUMBER</u>	<u>MAXIMUM OCCUPANCY</u>
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

.....  
 Signature of Principal Environmental Health Officer

.....  
 Date

**SCHEDULE 8**  
**APPLICATION FOR LICENCE OF A MORGUE**

(Clause 3.15 (2))

*Shire of Chittering*  
Health Act 1911

To: Chief Executive Officer  
Shire of Chittering

I.....  
(full name in block letters)

of.....  
(full residential address)

apply to licence the premises listed below as a Morgue

Address of premises.....  
.....

Name of premises.....

Dated this ..... day of ..... 20 .....

.....  
Signature of Applicant

**SCHEDULE 9  
CERTIFICATE OF LICENCE OF A MORGUE**

*(Clause 3.15(3)(a))*

*Shire of Chittering*  
Health Act 1911

This is to certify the following premises is licensed as a Morgue from:

..... day of ..... 20 .....  
until 30th day of June 20 .....

Address of premises .....

.....

Name of premises .....

.....

.....  
Signature of Principal Environmental Health Officer

.....  
Date



**SCHEDULE 10**  
**APPLICATION FOR CONSENT TO ESTABLISH AN OFFENSIVE TRADE**

(Clause 9.2(1)(b))

*Shire of Chittering*  
Health Act 1911

To: Chief Executive Officer  
Shire of Chittering

I/We, .....  
(Full Name of Applicant/s)

of .....  
.....  
(Residential Address of Applicant/s)

apply for consent to establish an offensive trade being .....  
.....

**Description of Offensive Trade**

in or upon .....

**Location of the House or Premises**

Notice of my/our intention to make this application was advertised

in.....

on.....  
(Date of Advertisement)

Plans and specifications of the buildings proposed to be used or erected in connection with the proposed offensive trade are attached.

.....  
Signature of Applicant/s

.....  
Date

**SCHEDULE 11**  
**APPLICATION FOR REGISTRATION OF PREMISES FOR OFFENSIVE TRADE**

(Clause 9.4 (a))

*Shire of Chittering*  
Health Act 1911

To: Chief Executive Officer  
Shire of Chittering

I/We, .....  
(Full Name of Applicant/s)

of .....  
.....  
.....  
(Residential Address of Applicant/s)

apply for registration, for the year ended .....  
of .....  
(Location of Premises)

being premises in or upon which there is (or is to be) carried on an offensive trade, namely  
.....  
.....  
(Description of Offensive Trade)

under the business name of .....  
.....

The prescribed registration fee of \$..... is attached.

.....  
Signature of Applicant/s

.....  
Date

**SCHEDULE 12**  
**CERTIFICATE OF REGISTRATION OF PREMISES FOR OFFENSIVE TRADE**

(Clause 9.5)

*Shire of Chittering*  
Health Act 1911

This is to certify that the premises situated at.....

.....

of which.....

is the occupier, are registered for the carrying on of the trade  
of.....

Trade

Name.....

This registration expires on the ..... day of ..... 20 .....

Dated this ..... day of ..... 20 .....

.....  
Signature of Principal Environmental Health Officer

.....  
Date



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## HEALTH ACT 1911

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## SHIRE OF CHITTERING

## HEALTH LOCAL LAWS 1998

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**HEALTH ACT 1911**

## SHIRE OF CHITTERING

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**HEALTH ACT 1911****SHIRE OF CHITTERING****HEALTH LOCAL LAWS 1998**

Pursuant to the powers under the *Health Act 1911*, the Council of the Shire of Chittering makes the following local laws.

**PART 1—PRELIMINARY****Citation**

1. These local laws may be cited as the “*Shire of Chittering Health Local Laws 1998*”.

**Repeal**

2. (i) The Health Local Laws adopted by the Shire of Chittering and published in the *Government Gazette* on the 8 July 1949, and amended from time to time, are repealed;  
(ii) The Health Local Laws adopted by the Shire of Chittering on 20 October 1956 and published in the *Government Gazette* on the 8 March 1957, and amended from time to time, are repealed;  
(iii) The Health Local Laws adopted by the Shire of Chittering on 13 October 1967 and published in the *Government Gazette* on the 20 December 1967, and amended from time to time, are repealed; and  
(iv) The *Health Local Laws Relating to Intensive Piggeries* adopted by the Shire of Chittering on 21 October 1983 and published in the *Government Gazette* on the 20 January 1984, and amended from time to time, are repealed.

**Interpretation**

3. (1) In these local laws, unless the context otherwise requires—

“Act” means the *Health Act 1911* and includes subsidiary legislation made under the *Health Act 1911*;

“adequate supply of water” means a flow of water of not less than 0.076 litres per second;

“approved” means approved by the Principal Environmental Health Officer;

“AS” means Australian Standard published by the Standards Association of Australia;

“Building Code” means the Building Code of Australia as adopted by the *Building Regulations 1989* made under the *Local Government (Miscellaneous Provisions) Act 1960*;

“Chief Executive Officer” means the Chief Executive Officer of the Shire of Chittering and includes an Acting Chief Executive Officer;

“Council” means the Council of the Shire of Chittering;

“district” means the district of the Shire of Chittering and includes any area placed under the jurisdiction of the Council pursuant to section 22 of the Act;

“dwelling house” means a place of residence containing at least one sleeping room and includes a room or outbuilding separate from, but ancillary to, the building in which the sleeping room is located;

“Environmental Health Officer” means an Environmental Health Officer appointed by the Council under the Act and includes an Acting or Assistant Environmental Health Officer;

“habitable room” means a room used for normal domestic activities, and

(a) includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, play-room, family room and sun-room; but

(b) excludes a bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, lobby, photographic dark room, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods;

“hot water” means water at a temperature of at least 75 degrees Celsius;

“Medical Officer” means the Medical Officer appointed by the Council under the Act and includes an Acting Medical Officer so appointed;

“Principal Environmental Health Officer” means an Environmental Health Officer appointed by the Council to the office of Principal Environmental Health Officer and includes an Acting Principal Environmental Health Officer;

“public place” includes every place to which the public ordinarily have access, whether by payment of a fee or not;

“sanitary convenience” includes urinals, water-closets, earth-closets, privies, sinks, baths, wash troughs, apparatus for the treatment of sewage, ash-pits, ash-tubs, or other receptacle for the deposit of ashes, faecal matter, or refuse, and all similar conveniences;

“sewage” means any kind of sewage, nightsoil, faecal matter or urine, and any waste composed wholly or in part of liquid;

“sewer” includes sewers and drains of every description, except drains to which the word “drain” as defined in the Act applies, also water channels constructed of stone, brick, concrete, or any other material, including the property of Council;

“street” includes any highway, and any public bridge, and any road, lane, footway, square, court, alley or passage, whether a thoroughfare or not;

“toilet” means a water closet, earth closet, privy or urinal and includes a room or cubicle in which one or more of these is located;

“water” means drinking water within the meaning of the Guidelines for Drinking Water Quality In Australia—1987 as published by the National Health and Medical Research Council; and

“window” means a glass panel, roof light, glass brick, glass louvre, glazed sash, glazed door, or other device which transmits natural light directly from outside a building to the room concerned when in the closed position.

(2) Where in these local laws, a duty or liability is imposed on an “owner or occupier”, the duty or liability shall be deemed to be imposed jointly and severally on each of the owner or occupier.

(3) Where under these local laws an act is required to be done or forbidden to be done in relation to any premises, the owner or occupier of those premises has, unless the contrary intention appears, the duty of causing to be done the act so required to be done, or of preventing from being done the act so forbidden to be done, as the case may be.

## PART 2—SANITATION

### *Division 1—Sanitary Conveniences*

#### **Interpretation**

4. In this Part, unless the context otherwise requires—

“festival” includes a fair, function or event;

“organiser” means a person—

- (a) to whom approval has been granted by the Council to conduct the festival; or
- (b) responsible for the conduct of the festival;

“public sanitary convenience” means a sanitary convenience to which the public ordinarily have access, whether by payment of a fee or not; and

“temporary sanitary convenience” means a sanitary convenience, temporarily placed for use by—

- (a) patrons in conjunction with a festival; or
- (b) employees at construction sites or the like.

#### **Dwelling House**

5. (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house unless it has at least one toilet.

(2) A room in which a toilet is located shall have adequate lighting.

#### **Premises other than a Dwelling House**

6. (1) The owner of premises other than a dwelling house shall not use or occupy, or permit to be used or occupied, premises other than a dwelling house unless—

- (a) the premises have sanitary conveniences in accordance with the Building Code and this Part;
- (b) the toilets required by these local laws are situated within a reasonable distance and are easily accessible to the persons for whom they are provided; and
- (c) the premises have hand wash basins—
  - (i) in accordance with the Building Code;
  - (ii) for the use of persons employed or engaged on the premises;
  - (iii) provided with an adequate supply of water supplied by taps located over each basin;
  - (iv) separate from any trough, sink or basin used in connection with any process carried out on the premises; and
  - (v) situated within a reasonable distance of the sanitary conveniences and easily accessible to the person for whom they are provided.

(2) The occupier of premises other than a dwelling house shall ensure that—

- (a) clean toilet paper is available at all times in each cubicle;
- (b) a sanitary napkin disposal facility is provided in each toilet set aside for the use of females; and
- (c) each hand wash basin is provided with—
  - (i) an adequate supply of soap or other hand cleaning substances; and
  - (ii) hand drying facilities, situated adjacent to and visible from the hand basin.

**Outdoor Festivals**

7. (1) The organiser of an outdoor festival at which not more than 20,000 people are expected to attend shall provide sanitary conveniences in accordance with the following scale—

- (a) for the first 1,000 males—
  - (i) one water closet for each 333;
  - (ii) one urinal stall for each 100; and
  - (iii) one hand wash basin for each 500;
- (b) for additional males—
  - (i) one water closet for each 500;
  - (ii) one urinal stall for each 100; and
  - (iii) one hand wash basin for each 500;
- (c) for the first 1,000 females—
  - (i) one water closet for each 77; and
  - (ii) one wash hand basin for each 500; and
- (d) for additional females—
  - (i) one water closet for each 100; and
  - (ii) one wash hand basin for each 500.

(2) Where, under sub-section (1), the number of a particular sanitary convenience to be provided is not a whole number, that number shall be rounded up to the next higher whole number.

(3) The organiser of an outdoor festival at which more than 20,000 people are expected to attend shall provide sanitary conveniences of a number as directed by the Principal Environmental Health Officer.

**Toilets**

8. (1) Toilets on premises shall be maintained in accordance with the following requirements—

- (a) the door to a toilet, other than an internal toilet, shall be properly screened to a continuous height of 1.8 metres from the floor;
- (b) a toilet or its entrance which is visible from overlooking windows shall be properly screened;
- (c) the floor of any internal toilet shall be—
  - (i) of concrete or of other approved impervious material of an approved thickness; and
  - (ii) graded to a floor waste outlet and proper discharge pipe with flap valve fitted and, where necessary, protected by an approved sump; and
- (d) the floor of any external toilet shall be—
  - (i) of concrete or of other approved impervious material of an approved thickness; and
  - (ii) graded to the door or alternatively an approved outlet.

(2) Toilets on premises other than a dwelling house shall be maintained in accordance with the following additional requirements—

- (a) a toilet for the exclusive use of males shall not adjoin any toilet for the exclusive use of females unless the toilets are separated by a wall extending from floor to ceiling and of sufficient density to blanket sound; and
- (b) where more than one toilet is provided on the premises, the entrance to each toilet shall bear a suitable sign indicating for which sex its use is intended.

**Temporary Works**

9. A person who undertakes temporary work at any place shall—

- (a) provide and maintain for the use of persons engaged, whether as employees or as independent contractors or otherwise, one temporary approved toilet for every 20 such persons; and
- (b) remove the toilet at the conclusion of the work or at an earlier time in accordance with a direction from the Principal Environmental Health Officer, and ensure the site is left clean.

**Maintenance of Sanitary Conveniences and Fittings**

10. (1) The occupier of premises shall—

- (a) keep clean, in good condition and repair; and
- (b) whenever required by an Environmental Health Officer, effectively disinfect and clean,

all sanitary conveniences including sanitary fittings in or on the premises.

(2) The owner of premises shall—

- (a) keep or cause to be kept in good repair; and
- (b) maintain an adequate supply of water to all sanitary conveniences including sanitary fittings in or on the premises.

**Ventilation of Toilet**

11. (1) A toilet in any premises shall be ventilated in accordance with the *Sewerage (Lighting, Ventilation and Construction) Regulations 1971* and the Building Code and shall be—

- (a) mechanically ventilated to external air, through a fully enclosed duct at a minimum rate of 25 litres per second per fixture, but in no case less than 10 air changes per hour; or

- (b) naturally ventilated to the external air by the provision of—
  - (i) fixed and permanently ventilated windows or skylights;
  - (ii) fixed glazed louvred windows; or
  - (iii) wall or ceiling vents, ducted as directly to the outside air as is practical and boxed throughout, situated in both the room in which the toilet is located and any adjacent airlock.
- (2) A mechanical ventilation system provided under sub-section (1)(a) shall—
  - (a) be separate and distinct from any other system of mechanical ventilation in the building;
  - (b) be of an exhaust type;
  - (c) where it is provided for a building of more than 2 storeys, have a ventilating fan and power unit in duplicate; and
  - (d) be maintained in good working order and condition.
- (3) A natural ventilation system provided under sub-section (1)(b) shall have—
  - (a) a clear ventilation area of not less than 0.015 square metres per fixture; and
  - (b) a window of light transmitting area equivalent to not less than ten percent of the floor area.
- (4) A toilet with an entrance opening from—
  - (a) a room used for the manufacture, storage or consumption of food;
  - (b) a room used for sleeping or other domestic activities; or
  - (c) a room used as a work place,
 shall be mechanically ventilated as required by sub-section (1)(a) and the entrance shall be fitted with a door having an efficient self closing device.
- (5) Access to a toilet from a room used for the manufacture, storage and consumption of food shall be through an airlock ventilated in accordance with these local laws.

#### **Public Sanitary Conveniences**

12. (1) A person shall not—

- (a) foul;
- (b) damage or vandalise; or
- (c) write on or otherwise deface,

a public sanitary convenience or sanitary fixtures or fittings or the premises in or on which the sanitary convenience is located.

(2) A person using a public sanitary convenience shall where the convenience has been provided by the Council and a charge for its use has been levied, forthwith pay that charge.

(3) A person shall not live or sleep in or on the premises in which a public sanitary convenience is located or use it for a purpose other than that for which it was intended.

#### **Lighting**

13. The owner and occupier of premises in which a sanitary convenience or a public sanitary convenience is located shall provide and maintain adequate electric lighting for persons using the convenience.

#### **Installation**

14. (1) Every sanitary convenience shall be installed in accordance with the requirements of the *Metropolitan Water Supply Sewerage and Drainage Act 1909* and shall have an adequate supply of water.

(2) Every temporary sanitary convenience shall be installed in accordance with the requirements of the *Health (Temporary Sanitary Conveniences) Regulations 1997*.

#### *Division 2—Bathroom, Laundries and Kitchens*

#### **Bathrooms**

15. (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house without a bathroom that—

- (a) is adequately lined with an impervious material and has an adequate ceiling;
- (b) complies with the *Health Act (Laundries and Bathrooms) Regulations*; and
- (c) is equipped with—
  - (i) a wash hand basin; and
  - (ii) either a shower in a shower recess or a bath.

(2) The floor of the bathroom referred to in sub-section (1) shall be—

- (a) of concrete or of other approved impervious material of an approved thickness; and
- (b) properly surfaced with an even fall to a floor waste, suitably trapped and discharging to—
  - (i) the drainage system of a licensed water service operator; or
  - (ii) a proper discharge pipe with flap valve fitted and, where necessary, protected by an approved sump.

(3) All baths, showers, hand basins and similar fittings shall be provided with an adequate supply of hot and cold water.

**Laundries**

16. (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house without a laundry that—

- (a) is properly enclosed and roofed;
- (b) is adequately lined with an impervious material;
- (c) has a floor of concrete or other approved impervious material of an approved thickness;
- (d) is properly surfaced, with an even fall to a floor waste, suitably trapped and discharging to—
  - (i) the drainage system of a licensed water service operator; or
  - (ii) a proper discharge pipe with flap valve fitted and, where necessary, protected by an approved sump; and
- (e) is a room in which food is not stored, prepared, served or consumed.

(2) In the case of a single occupancy dwelling, the laundry referred to in sub-section (1) shall have—

- (a) either—
  - (i) two wash troughs and one copper; or
  - (ii) a washing machine and either a wash trough or a sink; and
- (b) a clothes drying facility comprising either an electric clothes dryer or not less than 20 metres of clothes line erected externally.

(3) All wash troughs, sinks, coppers and washing machines shall be—

- (a) in a laundry and connected to an adequate supply of hot and cold water; and
- (b) properly supported,

and all wash troughs and sinks shall have a capacity of at least 36 litres.

(4) Sole or multiple occupancy units, each being a separate dwelling, shall have—

- (a) laundry facilities, in accordance with the Building Code, for the exclusive use of the occupants of each unit; or
- (b) a separate laundry, with communal laundry facilities in accordance with the Building Code, for up to 4 sole occupancy units that do not have their own laundry facilities.

(5) Where, in any building, a laundry is situated adjacent to a kitchen or a room where food is stored or consumed, the laundry shall be separated from the kitchen by a wall extending from the floor to the roof or ceiling.

(6) Where there is an opening between a laundry and a kitchen or other room where food is stored or consumed, the opening shall—

- (a) not be more than 1220 millimetres wide; and
- (b) have a door which when closed shall completely fill the opening.

**Washing or Keeping of Clothes in Kitchens**

17. A person shall not in any kitchen or other place where food is kept—

- (a) wash or permit to be washed any clothing or bedding; or
- (b) keep or permit to be kept any soiled clothing or bedding.

**Kitchens**

18. (1) A person shall not use or occupy, or permit to be used or occupied, a dwelling house without a kitchen equipped with—

- (a) an electric, gas, wood or other fuel burning stove;
- (b) an oven with a capacity of not less than 0.005 cubic metres per person usually accommodated in the house with a minimum capacity of 0.03 cubic metres; and
- (c) a sink which shall—
  - (i) be at least 380 millimetres long, 300 millimetres wide and 150 millimetres deep; and
  - (ii) have an adequate supply of hot and cold water.

(2) The occupier of a dwelling house shall ensure that the stove, oven and sink are kept clean, in good order and repair and fit for use.

(3) A cooking facility shall—

- (a) be installed in accordance with the requirements of the Office of Energy; and
- (b) not be installed or used in any room other than a kitchen.

(4) Mechanical extraction shall be provided in a kitchen and the exhaust air shall be—

- (a) carried to the outside air as directly as practicable; and
- (b) boxed throughout.

(5) In this section, a “cooking facility” includes a stove, oven, facility or appliance used for or in connection with the cooking of food.

**PART 3—HOUSING AND GENERAL***Division 1—Maintenance of Houses***Dwelling House Maintenance**

19. The owner or occupier of a dwelling house shall maintain the dwelling house and any appurtenant buildings in sound condition and fit for use and, in particular, shall—

- (a) maintain all roofs and where required to be provided, guttering and downpipes in sound weatherproof condition;



- (b) maintain any footings, foundations and walls, either external or internal, in a sound condition;
- (c) replace any missing, broken, decayed or termite-eaten timber or other deteriorated material in any verandah, roof, walls, steps, handrails, floors or their supports with material of sound quality;
- (d) comply with the directions of an Environmental Health Officer to treat the premises for the purpose of destroying any termites;
- (e) maintain any brick, stone, mortar or cement work in a sound condition;
- (f) maintain, repair or replace any flashings or ant caps which are missing or defective;
- (g) maintain all ventilators in good order and repair;
- (h) maintain all floors even in surface and free from cracks;
- (i) maintain all ceilings, internal wall finishes, skirtings, architraves and other fixtures and fittings complete and with smooth unbroken surfaces;
- (j) maintain all doors and windows in good working order and weatherproof condition;
- (k) retain all natural lighting free from any obstruction which would reduce the natural lighting, below the ratio of 10% of the floor area;
- (l) maintain all pipes, fittings and fixtures connected with water supply, drainage or sewerage so that they comply in all respects with the provisions of the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* and any other legal requirements to which they are subject; and
- (m) maintain all electric wiring, gas services and fittings to comply in all respects with the requirements of the Office of Energy.

#### **Guttering and Downpipes**

20. When required by the Council a house shall be provided with gutters, downpipes and drains, and when so required, the owner of a house shall not use or occupy, or permit to be used or occupied, a house unless—

- (a) the house is provided with adequate guttering, downpipes and drains sufficient to receive without overflow all rainwater flowing into them and for all rain water to be effectively disposed of to the satisfaction of the Principal Environmental Health Officer;
- (b) the guttering and downpipes are fixed to the eaves of every roof of the house so that all rain water flowing from the roof shall be received by such guttering and downpipes;
- (c) all downpipes from guttering are connected so as to discharge into drains, which shall empty into a soak well, or other suitable storm water scheme;
- (d) each soak well is located at least 1.8 metres from any building and at least 1.8 metres from the boundary of the block; and
- (e) any rainwater from any downpipe is not discharged onto any unpaved surface of land within 1.5 metres of any house.

#### **Maintenance of Guttering and Downpipes and Disposal of Rainwater**

21. The owner or occupier of a house shall—

- (a) maintain all guttering, downpipes and drains on the premises in a good state of repair, clean and free from obstruction; and
- (b) not permit any rainwater from the premises to discharge onto or over a footpath, street or other property.

#### *Division 2—Ventilation of Houses*

#### **Exemption for Short Term Hostels and Recreational Campsites**

22. This Division shall not apply to short term hostels and recreational campsites referred to in Division 2 of Part 8.

#### **Overcrowding**

23. The owner or occupier of a house shall not permit—

- (a) a room in the house that is not a habitable room to be used for sleeping purposes; or
- (b) a habitable room in the house to be used for sleeping purposes unless—
  - (i) for every person over the age of 10 years using the room there is at least 14 cubic metres of air space per person; and
  - (ii) for every person between the ages of 1 and 10 years there is at least 8 cubic metres of air space per person; or
- (c) any garage or shed to be used for sleeping purposes.

#### **Calculate Sufficient Space**

24. For the purpose of section 23, in calculating the space required for each person—

- (a) each room shall be considered separately and sufficient space shall be allowed in each room for the number of persons present in the room at any one time; and
- (b) a deduction shall be made for the space occupied by furniture, fittings and projections of the walls into a room.



**Ventilation**

25. (1) A person shall not use or occupy, or permit to be used or occupied, a house unless the house is properly ventilated.

(2) For the purpose of sub-section (1) a house shall be deemed to be properly ventilated if it complies with the Building Code, including the provision of—

- (a) natural ventilation; or
- (b) a mechanical ventilation or air-conditioning system complying with AS1668.2.

(3) The owner of a house provided with a mechanical ventilation or air-conditioning system as its only or prime means of ventilation shall ensure that the system is—

- (a) maintained in good working condition and in accordance with AS3666-1989; and
- (b) in use at all times the building is occupied.

(4) If, in the opinion of the Principal Environmental Health Officer, a house is not properly ventilated, the Council may by notice require the owner of the house to—

- (a) provide a different, or additional method of ventilation; or
- (b) cease using the house until it is properly ventilated.

(5) The owner shall comply with a notice under sub-section (4).

**Sub-Floor Ventilation**

26. The owner or occupier of a house shall make provision for sub-floor ventilation by ensuring that air bricks and other openings are kept clear of refuse, vegetation, building materials, dirt and the like.

*Division 3—Water Supply***Water Supply**

27. (1) The owner of every house shall provide a continuous supply of drinking water obtained from—

- (a) a licensed water service operator;
- (b) an underground bore; or
- (c) a rainwater storage system with a minimum capacity of 120,000 litres; and

such supply shall be reticulated for use in connection with all sewerage and drainage fixtures.

(2) The water supply shall at all times deliver an adequate supply of drinking water to each tap in the house.

**Rain Water Tanks**

28. The owner or occupier of a house for which part of the water supply is drawn from a rain water tank shall—

- (a) maintain in a clean condition—
  - (i) the roof forming the catchment for the tank; and
  - (ii) the guttering and downpipes appurtenant to the roof;
- (b) ensure that each rain water tank is fitted with a tight-fitting mosquito proof cover which shall not be removed at any time except for the purpose of cleaning, repairing or maintaining the tank;
- (c) at least once in each year, thoroughly clean any tank the water from which is used for human consumption; and
- (d) when directed by an Environmental Health Officer, empty, clean and disinfect any tank upon the premises, the water from which is used for human consumption.

**Wells**

29. The owner or occupier of any premises shall not use or permit for human consumption the use of the water of any bore or well unless the bore or well is—

- (a) at least 30 metres from any soak well or other possible source of pollution unless otherwise approved by the Executive Director Public Health; and
- (b) covered with a tight-fitting cover without openings of any sort other than those essential for the insertion of a pump.

**Pollution**

30. A person shall not deposit on or under any land, any sewage, offensive matter or any other thing which may pollute or render unfit for human consumption, water from a well or other underground source.

*Division 4—Secondhand Furniture, Bedding and Clothing***Prohibition on Sale**

31. A person shall not offer for sale or sell any secondhand furniture, bedding or clothing which is filthy or infested with vectors of disease.

**Prohibition of Possession**

32. A dealer in secondhand furniture, bedding or clothing shall not have on any premises used for the operation of the business any secondhand furniture, bedding or clothing which is filthy or infested with vectors of disease.

*Division 5—Morgues***Licensing of Morgues**

33. (1) The annual fee for a licence for a place for the temporary reception and keeping of the bodies of the dead awaiting burial or cremation is prescribed in Schedule 8.

(2) A licence shall—

- (a) be in the form set out in Schedule 9; and
- (b) expire on 30 June next after the date of its issue.

(3) A licence shall not be granted in respect of any premises unless—

- (a) provision has been made for the keeping of the bodies of the dead at a temperature not exceeding zero degrees Celsius;
- (b) the walls are constructed of stone or brickwork or other approved material;
- (c) the interior surface of all walls is covered with glazed tiles or is rendered impervious so as to be non-absorbent and washable;
- (d) all floors are constructed of some impervious material, having a fall to an outlet discharging over a trapped gully; and
- (e) the premises are adequately ventilated by direct communication with the outside air.

(4) A morgue, except those conducted by a public hospital, Council or the Police is required to be licensed.

**PART 4—WASTE FOOD AND REFUSE***Division 1—Liquid Refuse***Definition**

34. In this division, unless the context otherwise requires—

“liquid refuse” includes all washings from the commercial cleaning of vehicles, overflow, bleed off, condensate and drainage from air conditioning equipment including cooling towers and evaporative coolers and other liquid used for cooling purposes and swimming pool discharges; and

“liquid waste” means bathroom, kitchen, scullery and laundry wastes, all washings from animal and poultry pens and any other domestic or trade wastes that are discharged by means of a drain to a receptacle for drainage.

**Deposit of Liquid Refuse**

35. A person shall not deposit or cause or permit to be deposited liquid refuse or liquid waste—

- (a) on a street;
- (b) in a stormwater disposal system; or
- (c) on any land or place other than a place or depot duly authorised for that purpose.

**Disposal of Liquid Waste**

36. (1) The owner or occupier of premises shall—

- (a) provide, by one of the methods prescribed in this section, for the disposal of all liquid waste produced on the premises; and
- (b) at all times maintain in good working order and condition any apparatus used for the disposal of liquid waste.

(2) Liquid waste shall be disposed of by one of the following methods—

- (a) discharging it into the sewerage system of a licensed water service operator in a manner approved by the licensed water service operator;
- (b) discharging it into an apparatus for the treatment of sewage and disposal of effluent and liquid waste approved by the Executive Director, Public Health or the Council; or
- (c) collection and disposal at an approved liquid waste disposal site in a manner approved by the Executive Director Public Health.

**Approval for Septic Tank Pumpouts**

37. A person shall not—

- (a) without the written approval of the Council; and
- (b) except in accordance with any terms and conditions imposed by the Council or the Executive Director, Public Health in connection with the approval under paragraph (a),

collect, remove or dispose of the contents of a septic tank, the pumpouts from holding tanks or an apparatus for the treatment of sewage.

**Application for Approval**

38. (1) A person may apply in writing to the Council for approval to collect, remove or dispose of the contents of a septic tank, the pumpouts from holding tanks or an apparatus for the treatment of sewage.

(2) The Council may grant or refuse an application under this section subject to conditions relating to—

- (a) the time and method of collection, removal or disposal of the contents; or
- (b) the route to be followed by a vehicle used in collection, removal or disposal of the contents.

- (3) Any conditions imposed by the Council under this section shall be—
- (a) specified in the written approval of the Council; and
  - (b) in addition to any conditions imposed by the Executive Director Public Health or conditions applying under any other law.
- (4) The Council may from time to time vary conditions imposed by it under this section by giving written notice of the variation to the person to whom approval was given.

#### **Notice of Intention**

39. A person to whom approval has been given under section 38 shall, at least 24 hours before collecting, removing or disposing of the contents of a septic tank or an apparatus for the treatment of sewage, notify the Principal Environmental Health Officer of his or her intention to do so.

#### *Division 2—Disposal of Refuse*

#### **Definition**

40. In this division, unless the context otherwise requires—

- “collection time”, where used in connection with any premises, means the time when rubbish or refuse is collected and removed from the premises by the Council or its contractor;
- “public place” includes a street, way or place which the public are allowed to use, whether the street, way or place is or is not on private property;
- “rubbish or refuse” includes any filth, dirt, ashes vegetation, garden refuse, waste material, waste food, sludge, offensive matter, cinders, wood or metal shavings and sawdust but does not include liquid waste or liquid refuse;
- “refuse disposal site” means land set apart by the Council under the Act as a site for the deposit of rubbish or refuse;
- “receptacle”, where used in connection with any premises, means—
  - (a) a polyethylene or other approved material cart fitted with wheels, a handle and a lid and having a capacity of at least 240 litres; or
  - (b) a container provided by the Council or its contractor for the deposit, collection and recycling of specific materials, and supplied to the premises by the Council or its contractor;
- “street” includes—
  - a highway; and
  - a thoroughfare;
- which—
  - the public are allowed to use;
  - and includes every part of the highway or thoroughfare, and other things including bridges and culverts, appurtenant to it; and
- “street alignment” means the boundary between the land comprising a street and the land that abuts thereon, but where a new street alignment is prescribed under the *Local Government (Miscellaneous Provisions) Act 1960*, means the new street alignment so prescribed.

#### **Prescribed Areas**

41. The areas specified in Schedule 14 are the areas within which the provisions of Section 112A of the Act shall operate and have effect.

#### **Receptacles**

42. An owner or occupier of premises shall—

- (a) at all times keep the lid of the receptacle closed except when depositing rubbish or refuse or cleaning the receptacle;
- (b) except for a reasonable period before and after collection time, keep the receptacle on the premises and located—
  - (i) behind the street alignment and so as not to be visible from a street or public place; or
  - (ii) in such other position as is approved by the Principal Environmental Health Officer;
- (c) within a reasonable period prior to collection time, place the receptacle in the street as close as practicable to the street alignment of the premises but so that it does not obstruct any foot-path, cycle way, right-of-way or carriage way;
- (d) if the receptacle is lost, stolen, damaged or defective, notify the Council within 7 days after the event; and
- (e) ensure that the premises is provided with an adequate number of receptacles.

#### **Exemption**

43. (1) An owner or occupier of premises may apply in writing to the Council for an exemption from compliance with the requirements of section 42(b) or (c).
- (2) The Council may grant or refuse, with or without conditions, an application for exemption from compliance under this section.
- (3) An exemption granted under this section shall state—
- (a) the premises to which the exemption applies;

- (b) the period during which the exemption applies; and
- (c) any conditions imposed by the Council.

(4) An exemption granted under this section shall cease to apply if and when the person to whom it is granted fails to comply with a condition of the exemption.

#### **Use of Receptacles**

44. An owner or occupier of premises shall—

- (a) not deposit or permit to be deposited in a receptacle—
  - (i) more than 70 kilograms of rubbish or refuse;
  - (ii) hot or burning ash;
  - (iii) oil, motor spirit or other flammable liquid;
  - (iv) liquid including liquid paint or other solvent;
  - (v) bricks, concrete, building rubble, earth or other like substances;
  - (vi) drugs, dressings, bandages, swabs or blood samples unless placed in a sealed impervious and leak-proof container;
  - (vii) hospital, medical, veterinary, laboratory or pathological substances containing blood unless placed in a sealed impervious and leak-proof container;
  - (viii) syringes, needles, surgical hardware, broken glass, sharps or other sharp objects unless placed in a sealed impervious leak-proof and impenetrable container;
  - (ix) cytotoxics, radioactive substances and dangerous chemicals;
  - (x) sewage, manure, nightsoil, faeces or urine;
  - (xi) any object which is greater in length, width, or breadth than the corresponding dimension of the receptacle or which will not allow the lid of the receptacle to be tightly closed; or
  - (xii) rubbish or refuse which is or is likely to become offensive or a nuisance, or give off an offensive or noxious odour, or to attract flies or cause fly breeding unless it is first wrapped in non-absorbent or impervious material or placed in a sealed impervious container;
- (b) unless authorised by the Principal Environmental Health Officer, not mark or disfigure the receptacle in any manner other than by the placement of a street number or other identifying mark;
- (c) at all times keep the receptacle in a clean condition;
- (d) whenever directed to do so by an Environmental Health Officer, thoroughly clean, disinfect, deodorise and apply a residual insecticide to the receptacle;
- (e) take all reasonable steps to prevent—
  - (i) fly breeding and keep the receptacle free of flies, maggots, cockroaches, rodents and other vectors of disease; and
  - (ii) the emission of offensive and noxious odours from the receptacle; and
- (f) ensure that the receptacle does not cause a nuisance to the occupiers of adjoining premises.

#### **Damage to Receptacles**

45. A person, other than the Council or its contractor, shall not—

- (a) damage, destroy or interfere with a receptacle; or
- (b) except as permitted by this section or as authorised by an Environmental Health Officer, remove a receptacle from any premises to which it was delivered by the Council or its contractor.

#### **Use of Other Containers**

46. (1) In the case of premises consisting of more than 3 dwellings, any premises used for commercial or industrial purposes or as a food premises, the Principal Environmental Health Officer may authorise rubbish or refuse to be deposited in a container other than a receptacle.

(2) The owner or occupier of premises who is authorised under this section to deposit rubbish or refuse in a container shall—

- (a) unless approved by the Principal Environmental Health Officer, not deposit or permit to be deposited in the container anything specified in section 44(a)(ii)—(xii);
  - (b) take all reasonable steps to prevent fly breeding in, and the emission of offensive or noxious odours from, the container;
  - (c) whenever directed by an Environmental Health Officer to do so, thoroughly clean, disinfect, deodorise and apply a residual insecticide to the container;
  - (d) cause the container to be located on the premises in an enclosure constructed and located as approved by the Principal Environmental Health Officer;
  - (e) ensure that the container is not visible from the street but is readily accessible for the purposes of collection; and
  - (f) ensure that the container does not cause a nuisance to an occupier of adjoining premises.
- (3) An owner or occupier shall—
- (a) provide a sufficient number of containers to contain all rubbish and refuse which accumulates or may accumulate in or from the premises;
  - (b) ensure that each container on the premises—
    - (i) has a close fitting lid; and

- (ii) is constructed of non-absorbent and non-corrosive material;
- (c) keep or cause to be kept each container thoroughly clean and in good condition and repair;
- (d) place any rubbish or refuse in, and only in, a container marked for that purpose;
- (e) keep the cover on each container except when it is necessary to place something in, or remove something from, it; and
- (f) ensure that the containers are emptied at least weekly or as directed by an Environmental Health Officer.

**Suitable Enclosure**

47. (1) An owner or occupier of premises—

- (a) consisting of more than 3 dwellings that have not been provided with individual receptacles; or
  - (b) used for commercial, industrial purposes, or as a food premises,
- that have been provided with receptacles, shall—
- (c) if required by the Principal Environmental Health Officer—
    - (i) provide a suitable enclosure for the storage and cleaning of receptacles on the premises; and
    - (ii) install in the enclosure a tap connected to an adequate supply of water.

(2) An owner or occupier of premises required to provide a suitable enclosure under this section shall keep the enclosure thoroughly clean and disinfected.

(3) For the purposes of this section, a “suitable enclosure” means an enclosure—

- (a) of sufficient size to accommodate all receptacles used on the premises but in any event having a floor area not less than a size approved by the Principal Environmental Health Officer;
- (b) constructed of brick, concrete, corrugated compressed fibre cement sheet or other material of suitable thickness approved by the Principal Environmental Health Officer;
- (c) having walls not less than 1.5 metres in height and having an access way of not less than 1 metre in width and fitted with a self closing gate;
- (d) containing a smooth and impervious floor—
  - (i) of not less than 75 millimetres in thickness; and
  - (ii) which is evenly graded to an approved liquid refuse disposal system; and
- (e) which is easily accessible to allow for the removal of the receptacles.

**Deposit of Refuse**

48. (1) A person shall not deposit or cause or permit to be deposited any rubbish or refuse in or on any street or on any land other than a refuse disposal site.

(2) A person shall not deposit rubbish or refuse in or on a refuse disposal site except—

- (a) at such place on the site as may be directed by the person in charge of the site; or
- (b) if the person in charge is not in attendance at the site, as may be directed by a notice erected on the site.

**Removal from Refuse Disposal Site**

49. (1) A person shall not remove any rubbish or refuse from a refuse disposal site without the written approval of the Council.

(2) A person who obtains approval from the Council shall comply with any conditions imposed by the Council and set out in the approval.

**Removal of Rubbish from Premises or Receptacle**

50. (1) A person shall not remove any rubbish or refuse from premises unless that person is—

- (a) the owner or occupier of the premises;
- (b) authorised to do so by the owner or occupier of the premises; or
- (c) authorised in writing to do so by the Council.

(2) A person shall not, without the approval of the Council or the owner of a receptacle, remove any rubbish or refuse from the receptacle or other container provided for the use of the general public in a public place.

**Burning of Rubbish or Refuse**

51. (1) A person shall not burn any plastic, rubber, food scraps, green garden cuttings or other material offensive when burnt that could not be removed by a refuse collection service.

(2) Burning shall not take place—

- (a) during any period for which an air dispersion alert for the area has been issued by the Bureau of Meteorology; or
- (b) where there is no dispersion alert outside the hours of 10:00 am to 3:00 pm.

(3) An incinerator used for burning must meet the minimum standards specified in A.S 1875—1976; and

- (a) be located at least 3 metres from a fence or building; and
- (b) in such a position so as not to create a nuisance or be offensive to other persons.



*Division 3—Transport of Butchers' Waste***Interpretation**

52. In this Division, unless the context otherwise requires—

“butchers' waste” includes animal skeletons and rib cages from a boning room and the inedible products of an abattoir.

**Restriction of Vehicles**

53. A person shall not use, for the transport of butchers' waste—

- (a) a vehicle used for the transport of food or drugs; or
- (b) anything intended to be used for the packing or handling of food or drugs.

**Transport of Butchers' Waste**

54. (1) A person shall not transport butchers' waste otherwise than in—

- (a) a compartment complying with the following specifications—
  - (i) the floor and 4 walls to be made of sheet metal and the walls to be not less than 910 millimetres high;
  - (ii) all joints to be welded, soldered or brazed and made water-tight;
  - (iii) the loading doors, if any, to be water-tight and kept closed at all times except when loading; and
  - (iv) the top to be completely covered by a tarpaulin or other impervious sheet material approved by the Principal Environmental Health Officer, carried over, and secured to the outside of the walls at least 300 millimetres from the top so as to keep the load out of sight of the public; or
- (b) a water-tight metal container fitted with a lid which can be tightly closed.

(2) A person shall not transport any butchers' waste in a vehicle unless the vehicle and its fittings, including the compartment or container referred to in this section, are—

- (a) maintained in good order and condition; and
- (b) thoroughly cleaned at the conclusion of each day's work.

(3) A person shall not load, transport, or unload butchers' waste in a manner that is or may be offensive due to—

- (a) the sight of animal skeletons, bones, offal or waste matter;
- (b) the odour of putrefaction, offal or waste matter; or
- (c) the presence of blood and particles of flesh or fat dropping onto the surface of the street pavement or ground.

**PART 5—NUISANCES AND GENERAL***Division 1—Nuisances***Interpretation**

55. In this Division, unless the context otherwise requires—

“fertiliser” includes manure.

**Footpaths etc. to be kept clean**

56. An owner or occupier of premises shall maintain in a clean condition any footpath, pavement, area or right of way immediately adjacent to the premises.

**Escape of Smoke etc.**

57. (1) Subject to sub-section (2), an owner or occupier of premises shall not cause or permit the escape of smoke, dust, fumes, offensive or foul odours, liquid waste or liquid refuse from the premises in such quantity or of such a nature as to cause or to be a nuisance.

(2) Sub-section (1) does not apply to smoke from the chimney of a private dwelling house.

**Public Vehicles to be kept clean**

58. The owner or person in control of a public vehicle shall—

- (a) maintain the vehicle at all times—
  - (i) in a clean condition; and
  - (ii) free from vectors of disease; and
- (b) whenever directed to do so by an Environmental Health Officer, thoroughly clean and disinfect the vehicle as directed.

**Prohibition against Spitting**

59. A person shall not spit—

- (a) on a footpath, street or public place; or
- (b) in a train, bus or other public transport.

**Transportation, Use and Storage of Offal or Blood**

60. A person shall not transport or store offal or blood, for the purpose of being used as manure, unless it has been sterilised by steam and properly dried.



**Use or Storage of Fertiliser**

61. An owner or occupier of premises shall not use or keep for the purpose of use, as fertiliser any—
- (a) pig manure;
  - (b) human faeces; or
  - (c) urine.

**Storage and Despatch of Artificial Fertiliser**

62. An owner or occupier of premises where artificial fertiliser is stored in bulk for sale shall—
- (a) keep all artificial fertiliser in a building—
    - (i) of which the walls, floors and ceilings or undersides of the roof are constructed of durable and non-absorbent materials finished internally with a smooth surface; and
    - (ii) free from damp and properly ventilated;
  - (b) take proper precautions to prevent the emission of dust or offensive effluvia from the building; and
  - (c) ensure that all artificial fertiliser despatched from the premises is packed in such a manner as to prevent any nuisance arising during transit.

**Storage of Fertiliser in a House**

63. The owner or occupier of a house where fertiliser or compost is stored or used shall—
- (a) prevent the escape of odours, dust or particles of fertiliser or compost;
  - (b) treat the fertiliser or compost in such a manner as to effectively prevent it attracting or being a breeding place for flies or other insects; and
  - (c) store only such amounts of fertiliser or compost—
    - (i) as can be readily used within a reasonable period; or
    - (ii) as may be directed by the Principal Environmental Health Officer.

*Division 2—Keeping of Animals***Cleanliness**

64. An owner or occupier of premises in or on which a dog, cat or other animal or bird is kept shall—
- (a) keep the premises free from excrement, filth, food waste and all other matter which is or is likely to become offensive or injurious to health or to attract rats or other vectors of disease;
  - (b) when so directed by an Environmental Health Officer, clean and disinfect the premises; and
  - (c) keep the premises, so far as possible, free from flies or other vectors of disease by spraying with a residual insecticide or other effective means.

**Animal Enclosures**

65. (1) A person shall not keep or cause or permit to be kept any animals or birds on premises which are not effectively drained or of which the drainage flows to the walls or foundations of any building.
- (2) The owner or occupier of premises where animals or birds are kept shall, when directed by the Principal Environmental Health Officer, pave, grade and drain the floors of all structures and the surface of the ground of all enclosures used for the keeping of animals or birds.

**Cats**

66. (1) Subject to sub-section (5), a person shall not, without an exemption in writing from the Council, keep more than 3 cats over the ages of 3 months on premises on any land—
- (a) within the residential zones of the Shire of Chittering Town Planning Schemes; or
  - (b) used for residential purposes.
- (2) An owner or occupier of premises may apply in writing to the Council for exemption from the requirements of sub-section (1).
- (3) The Council shall not grant an exemption under this section unless it is satisfied that the number of cats to be kept will not be a nuisance or injurious or dangerous to health.
- (4) An exemption granted under this section shall specify—
- (a) the owner or occupier to whom the exemption applies;
  - (b) the premises to which the exemption applies; and
  - (c) the maximum number of cats which may be kept on the premises.
- (5) A person may keep more than 3 cats on premises used for veterinary purposes or as a pet shop.

**Slaughter of Animals**

67. (1) Subject to sub-section (2), a person shall not slaughter any animal within the district.
- (2) Sub-section (1) does not apply to—
- (a) euthanasia of animals by veterinarians or other duly authorised persons;
  - (b) the slaughter of animals for human consumption in abattoirs approved by the Council;
  - (c) farmers, pastoralists and the like who slaughter stock for their own consumption; and
  - (d) slaughter of animals for the purposes of pet meat and game meat operations.

**Disposal of Dead Animals**

68. (1) An owner or occupier of premises on which there is a dead animal shall immediately remove the carcass and arrange for its disposal at an approved disposal site.

(2) An owner, or a person having the care, of any animal that dies or is killed in a public or private place shall immediately remove the carcass and arrange for its disposal at an approved disposal site.

(3) The requirements of subsections (1) and (2) shall not limit the practice by farmers, pastoralists and the like of disposing of carcasses on rural land in a manner that is not likely to pollute or be dangerous or injurious to health.

*Division 3—Keeping of Large Animals***Interpretation**

69. In this Division, unless the context otherwise requires—

“approved animal” means a horse, cow, pig, sheep or goat;

“cow” includes an ox, calf or bull; and

“horse” includes an ass, mule, donkey or pony.

**Keeping of Pigs**

70. Owner or occupier of premises within the district shall not keep a pig except with approval from Council.

**Keeping of Approved Animals and Provision of Stables**

71. (1) An owner or occupier of premises within a townsite other than on land zoned for rural purposes shall—

- (a) keep approved animals in a manner so as not to create a nuisance and in this respect an Environmental Health Officer may limit or vary the number of approved animals that may be kept on an allotment;
- (b) not keep a horse or cow on those premises without the written approval of the Council and such approval notice shall prescribe the number of horses or cows permitted to be kept; and
- (c) not keep a horse or cow on an allotment of less than 2000m<sup>2</sup> save that Council may, at its discretion, waive strict compliance with this requirement with respect to any stable in existence prior to the day of this section coming into force.

(2) An owner or occupier of premises who is required to and has obtained approval to keep a horse or cow shall provide for its use a stable which shall—

- (a) not be situated with 15 metres of a house or other premises;
- (b) have a proper separate stall—
  - (i) for each horse or cow; and
  - (ii) the floor area of which shall be a minimum of 11 square metres;
- (c) have each wall and roof constructed of an impervious material;
- (d) have on all sides of the building between the wall and the roof a clear opening of at least 150 millimetres in height; and
- (e) subject to subsection (3), have a floor, the upper surface of which shall—
  - (i) be raised at least 75 millimetres above the surface of the ground;
  - (ii) be constructed of approved material; and when required
  - (iii) have a fall of 1 in 100 to a drain which shall empty into a trapped gully situated outside the stable and shall discharge in a manner approved by the Principal Environmental Health Officer.

(3) The construction of any stable with a sand floor may be permitted by Council, subject to the following conditions—

- (a) the site must be well drained with the highest known water table no closer than 1.5 metres off the ground or sand floor level. This may be achieved artificially;
- (b) whether natural or imported sand, it must be clean, coarse and free from dust;
- (c) footings to each stable shall be a minimum of 450mm below ground level;
- (d) the stable design must allow for the access of small machinery, such as a bobcat, into each individual stall to maintain the correct floor height;
- (e) the minimum floor area of each stall shall not be less than 28 square metres and walls shall not be less than 50% of the floor area; and
- (f) in all other respects subsection (2) shall apply to the stable building.

(4) The owner or occupier of premises on which a stable is located shall—

- (a) maintain the stable in a clean condition and clean, wash and disinfect it when so directed by an Environmental Health Officer;
- (b) keep all parts of the stable so far as possible free from flies or other vectors of disease by spraying with a residual insecticide or other effective means; and
- (c) when so ordered by the Principal Environmental Health Officer, spray the stable, or such parts as may be directed, with a residual insecticide.

(5) In areas other than residential areas the Principal Environmental Health Officer may vary the requirements to provide a stable.

**Proximity of Animals to a Dwelling House**

72. The owner or occupier of premises shall not permit an approved animal to approach within 15 metres of a dwelling house.

**Manure Receptacle**

73. An owner or occupier of premises on which a stable is constructed shall—

- (a) provide in a position convenient to the stable a receptacle for manure, constructed of smooth, impervious, durable material that is easily cleanable and provided with a tight-fitting hinged cover, and with no part of the floor lower than the surface of the adjoining ground;
- (b) keep the lid of the receptacle closed except when manure is being deposited or removed;
- (c) cause the receptacle to be emptied at least once a week and as often as may be necessary to prevent it becoming offensive or a breeding place for flies or other vectors of disease;
- (d) keep the receptacle so far as possible free from flies or other vectors of disease by spraying with a residual insecticide or other effective means; and
- (e) cause all manure produced on the premises to be collected daily and placed in the receptacle.

*Division 4—Keeping of Poultry and Pigeons***Interpretation**

74. In this Division, unless the context otherwise requires—

“poultry” includes fowls, peafowls, turkeys, geese, ducks and other domestic fowls; and

“prescribed area” means those areas within a townsite zoned other than rural or special rural.

**Limitation on Numbers of Poultry and Pigeons**

75. (1) An owner or occupier of premises in prescribed areas—

- (a) who is not an Affiliated Person, shall not keep a combined total of more than 20 poultry and pigeons; and
- (b) who is an Affiliated Person, shall not keep a total of more than 150 pigeons and 20 poultry,

on any one lot of land.

(2) In this section, “Affiliated Person” means a person who is a member of—

- (a) the Pigeon Racing Federation of Western Australia;
- (b) the Fancy Utility Pigeon Club of Western Australia; or
- (c) any other properly constituted Pigeon Club, Bantam Club and the like.

**Conditions of Keeping Poultry**

76. (1) A person who keeps poultry or permits poultry to be kept in prescribed areas shall ensure that—

- (a) all poultry is kept in a properly constructed and securely fastened structure or enclosure;
- (b) the structure or enclosure is in a yard having an otherwise unobstructed area of at least 30 square metres; and
- (c) no poultry is able to approach within 18 metres of a street other than a right of way unless, in the case of land at the junction of two or more streets, Council has approved a lesser distance.

(2) A person who keeps poultry or permits poultry to be kept shall ensure no poultry is able to encroach within 15 metres of a dwelling house, public building, or premises where people are employed or premises where food is stored, prepared, manufactured or sold.

**Roosters**

77. (1) An owner or occupier of premises shall not—

- (a) without the written approval of the Principal Environmental Health Officer; or
- (b) except in accordance with any conditions imposed by the Principal Environmental Health Officer in connection with the approval under paragraph (a),

keep or permit a rooster to be kept on the premises.

(2) The Principal Environmental Health Officer may, upon written application, grant approval with or without conditions to the owner or occupier of premises to keep on the premises a specified number of roosters.

**Pigeons or Doves**

78. A person who keeps, or permits to be kept, pigeons or doves shall ensure that—

- (a) none is able to approach within 15 metres of a dwelling, public building or premises where people are employed or where food is stored, prepared, manufactured or sold; and
- (b) except where in a prescribed area registered homing pigeons are freed for exercise, the pigeons or doves are kept in a properly constructed pigeon loft or dove cote that is in a yard having an otherwise unobstructed area of at least 30 square metres.

**Removal of Non-Conforming Structure or Enclosure**

79. (1) If a structure or enclosure is used for the keeping of poultry or of pigeons or doves contrary to the provisions of section 76 and 78, the Principal Environmental Health Officer may direct the owner or occupier to remove it.

(2) An owner or occupier shall comply with a direction from the Principal Environmental Health Officer under this section.

**Restrictions on Pigeon Nesting or Perching**

80. (1) The Council may order an owner or occupier of a house in or on which pigeons are, or are in the habit of, nesting or perching to take adequate steps to prevent them continuing to do so.  
(2) An owner or occupier shall comply with the Council order under this section.

*Division 5—Car Parks***Interpretation**

81. In this Division, unless the context otherwise requires—

- “attendant’s booth” means a booth which is positioned inside a car park for the containment of a parking attendant;  
“car park” means premises, or any part of premises, set aside for parking of 3 or more motor vehicles; and  
“occupier” means a person having the charge, management or control of a car park.

**Ventilation**

82. (1) A person shall not use or occupy, or permit to be used or occupied, a car park unless it is ventilated by either—

- (a) natural ventilation; or
- (b) mechanical means,

in accordance with AS1668.2 Part 2 1991.

- (2) If, in the opinion of the Principal Environmental Health Officer, a car park is not properly ventilated, the Council may by notice require the occupier within a specified time to—

- (a) provide a different or additional method of ventilation; and
- (b) cease using the car park until it is properly ventilated.

- (3) An occupier shall comply with a notice under sub-section (2).

**Exhaust Air Discharge Points and Exhaust Registers**

83. An owner or occupier shall ensure that—

- (a) all exhaust air that is discharged from a car park shall be discharged—
  - (i) at discharge points—
    - (a) in accordance with AS1668.2 Part 2 1991; and
    - (b) located so that the hourly average exhaust flow rate is not reduced below the minimum requirement of AS1668.2 Part 2 1991; and
  - (ii) at a velocity and in a direction so as not to be a danger to health or a nuisance;
- (b) exhaust registers are located—
  - (i) as far as possible from the source of supply air; and
  - (ii) so as to draw effluent away from staff working in the attendant’s booth;
- (c) in the case of a car park having a floor level below that of the external ground level, at least 50% of the required exhaust air is drawn into exhaust registers having their bottom edge located within 100 millimetres of the floor level; and
- (d) any mechanical ventilation system is—
  - (i) maintained in good working condition; and
  - (ii) in operation at all times when the car park is in use.

**Car Park Attendant Booths**

84. (1) An owner or occupier shall ensure that an attendant’s booth—

- (a) is provided with a fresh air supply ventilation system—
  - (i) with air flow rates that give a minimum of 40 air changes per hour; and
  - (ii) which is in operation whenever the booth is occupied;
- (b) has intakes for fresh air located and arranged so that under all conditions of normal operation adjacent sources of pollution do not reduce the quality of fresh air;
- (c) has a capacity of not less than 5 cubic metres;
- (d) has all windows and doors, except at the toll taking area opening, closed at all times when an attendant is in the booth; and
- (e) has a toll taking opening that is of a minimum size that is practicably required to carry out the operation of toll paying.

- (2) If, in the opinion of the Principal Environmental Health Officer, an attendant’s booth is not properly ventilated in accordance with sub-section (1), the Council may by notice require the occupier to cease using the booth until it is properly ventilated.

- (3) An occupier shall comply with a notice under sub-section (2).

**PART 6—PEST CONTROL***Division 1—Flies***Interpretation**

85. In this Division, unless the context otherwise requires—

- “flies” means any of the two-winged insects constituting the order Diptera commonly known as flies.

**Fly breeding matter not to be left on Premises unless Covered or Treated**

86. An owner or occupier of premises shall not place, throw or leave, or permit or cause to be placed, thrown or left in, on or about the premises any matter or thing which is liable to attract or be a breeding place for flies, unless that matter or thing is covered, protected, treated or dealt with in such a manner as to effectively prevent it from attracting or being a breeding place for flies.

**Measures to be taken by an Occupier**

87. An owner or occupier of premises shall ensure that—

- (a) rubbish receptacles are kept clean and tightly sealed at all times except when refuse is being deposited or emptied;
- (b) food scraps and uneaten pet food are wrapped tightly and deposited in a rubbish receptacle without delay;
- (c) lawn clippings used on gardens as mulch are raked out thinly;
- (d) fertilisers are dug well into the soil;
- (e) compost heaps are kept well covered;
- (f) barbecues are kept clean and free from food scraps;
- (g) anything that is buried and may attract or be a breeding place for flies is covered with at least 100 millimetres of soil; and
- (h) excrement from pets is collected and properly disposed of without delay.

**Officer may give Notice directing measures to be Taken**

88. Where in the opinion of an Environmental Health Officer flies are prevalent or are breeding on any premises, the Officer may give to the owner or occupier of the premises notice in writing directing him or her to take, within the time specified in the notice, such measures as in the opinion of the Officer are necessary to—

- (a) control the prevalence;
- (b) effect the eradication; or
- (c) effectively prevent the breeding

of flies

**Council may Execute Work and Recover Costs**

89. (1) Where—

- (a) a person is required under this Division or directed by a notice given under section 88, to execute any work; and
- (b) that person fails or neglects to comply with the requirement,

the Council may execute the work and may recover from that person the cost of executing the work, in addition to any penalty for which that person may be liable under this section.

(2) The costs and expenses incurred by the Council in the execution of a power under sub-section (1) may be recovered in a court of competent jurisdiction from the person referred to in sub-section (1).

(3) The Council shall not be liable to pay compensation or damages of any kind to the person referred to in sub-section (1) in relation to any action taken by the Council under this section.

*Division 2—Mosquitoes***Interpretation**

90. In this Division, unless the context otherwise requires—

“mosquitoes” means any of the two-winged insects constituting the family Diptera Culicidae commonly known as mosquitoes.

**Premises to be kept free of Mosquito Breeding Matter**

91. An owner or occupier of premises shall keep the premises free of—

- (a) refuse; and
- (b) water located so as to be,

liable to become the breeding place of mosquitoes.

**Measures to be taken by an Owner or Occupier**

92. An owner or occupier of premises—

- (a) where there is a fountain, pool, pond or excavation of any kind which contains water suitable for the breeding of mosquitoes, shall keep the water—
  - (i) stocked with mosquito destroying fish; or
  - (ii) covered with a film of petroleum oil or other larvicide; and
- (b) where there is a water tank, well, cistern, vat or barrel, shall—
  - (i) keep it protected with a mosquito-proof cover; and
  - (ii) screen all openings, other than the delivery exit, with wire mesh having openings no larger than 1.2 millimetres.

**Measures to be taken by Occupier**

93. An occupier of premises where water is kept in a horse trough, poultry drinking vessel or other receptacle shall—

- (a) frequently change the water; and
- (b) keep the water clean and free from vegetable matter and slime.



**Removal of Undergrowth or Vegetation**

94. (1) Where it appears to the Principal Environmental Health Officer that there is, on any premises, undergrowth or vegetation likely to harbour mosquitoes, he or she may direct, orally or in writing, the owner or occupier of the premises to cut down and remove within a specified time the undergrowth or vegetation.

(2) An owner or occupier of premises shall comply with a direction from, and within the time allowed by, the Principal Environmental Health Officer under this section.

**Filling in Excavations etc.**

95. Unless written permission to the contrary is obtained from the Council, a person who cuts turf or removes soil or other material from any land shall forthwith ensure that each excavation is filled in with clean sound material and made level with the surrounding surface.

**Drains, Channels and Septic Tanks**

96. An owner or occupier of land shall—

- (a) cause all drains and channels in or on the land to be kept in good order and free from obstruction; and
- (b) where a septic tank is installed on the land—
  - (i) apply an approved larvicide according to the direction on the container, into the septic tank system, whenever directed to do so by an Environmental Health Officer; and
  - (ii) provide, and keep in sound condition at all times, wire mesh having openings no larger than 1.2 millimetres covering any inlet vent to the tank.

**Drainage of Land**

97. An owner or occupier of land upon which there is water liable to become a breeding place for mosquitoes shall, when required by the Council, effectively drain the land and, for that purpose, shall—

- (a) make or provide drains on the land;
- (b) remove all irregularities in the surface of the land;
- (c) if necessary, adjust the surface of the land or raise the level of the surface in such a manner that—
  - (i) the water on the land may flow into the drains without obstruction; and
  - (ii) no water shall remain on any portion of the land other than the drains; and
- (d) keep all drains in good order and free from obstruction.

*Division 3—Rodents***Interpretation**

98. In this Division, unless the context otherwise requires—

“rodents” means those animals belonging to the order Rodentia and includes rats and mice but does not include animals (other than rats) kept as pets in an enclosure designed for the purpose of keeping as pets animals of that kind.

**Measures to be taken to eradicate Rodents**

99. (1) An owner or occupier of premises shall at all times take effective measures to eradicate any rodents in or on the premises.

(2) Without limiting the generality of sub-section (1), an owner or occupier of premises, whenever there are indications of the presence of rodents in, on or about the premises, and while such indications continue, shall—

- (a) take effective measures to keep the premises free from rodents including—
  - (i) protecting food stuffs;
  - (ii) using a rodenticide bait or a properly baited trap; and
  - (iii) preventing rodents having access to bait on the premises;
- (b) inspect daily each rodenticide bait or trap used and, whenever a rodent is found, shall—
  - (i) if it is not already dead, kill it immediately; and
  - (ii) dispose of the carcass in such a manner as will not create a nuisance; and
- (c) take whatever measures for the eradication of rodents as an Environmental Health Officer may from time to time direct.

**Waste food etc. to be kept in rodent proof Receptacles**

100. A person shall not place or caused to be placed in or on any premises, and an owner or occupier of premises shall not permit to remain in or on the premises—

- (a) any waste food, refuse, or other waste matter which might attract rodents to the premises or which might afford harbourage for rodents; or
- (b) any food intended for birds or other animals,

unless it is contained in a rodent proof receptacle or a compartment which is kept effectively protected against access by rodents.

**Restrictions on materials affording harbourage for Rodents**

101 (1) An owner or occupier of premises shall cause—

- (a) any part of the premises; or
- (b) any material, sewer, pipe or other thing in or on the premises,



that might afford access or harbourage to rodents to be altered, repaired, protected, removed or otherwise dealt with so as to prevent it being used as access for, or harbourage of, rodents.

(2) An Environmental Health Officer may direct, orally or in writing, an owner or occupier of premises to take whatever action that, in the opinion of the Officer, is necessary or desirable to prevent or deter the presence of rodents in or on the premises.

(3) An owner or occupier shall within the time specified comply with any direction given by an Environmental Health Officer under this section.

#### **Food Premises etc. to be cleaned after Use**

102. An owner or occupier of a food premises, theatre or place of entertainment, whether indoor or outdoor, shall cause the premises to be cleaned immediately after the last occasion on which the premises have been used on that day or, if the use extends after midnight, then immediately after that use.

#### **Restrictions on the Sale or Keeping of Rats**

103. (1) Subject to sub-section (2) an owner or occupier of premises shall not, on or from those premises—

- (a) keep or permit to be kept a rat; or
- (b) sell or offer for sale or permit to be sold or offered for sale a rat.

(2) Sub-section (1) shall not prevent the keeping of rats for the purpose of scientific or medical research on premises owned or occupied by—

- (a) a university or school;
- (b) a person approved by the Council; or
- (c) a public hospital or a private hospital within the meaning of those expressions in the *Hospitals and Health Services Act 1927*.

(3) A person or body specified in sub-section (2) which keeps rats for the purpose of scientific or medical research shall—

- (a) at all times ensure that all live rats are kept in the effective control of a person or in locked cages; and
- (b) if a rat escapes, forthwith comply with the requirements of section 99 and ensure that all reasonable steps are taken to destroy the rat.

#### *Division 4—Cockroaches*

##### **Interpretation**

104. In this Division, unless the context otherwise requires—

“cockroach” means any of the various orthopterous insects commonly known as cockroaches—

##### **Measures to be taken to eradicate Cockroaches**

105. (1) An owner or occupier of premises shall take effective measures to eradicate any cockroaches in or on the premises.

(2) Without limiting the generality of sub-section (1), an owner or occupier of premises, whenever there are any indications of the presence of cockroaches in, on or about the premises, and while such indications continue, shall take effective measures to keep the premises free from cockroaches including—

- (a) washing and storing, immediately after use, cooking and eating utensils;
- (b) wrapping and depositing in a rubbish receptacle without delay all food scraps, uneaten pet food and garbage;
- (c) properly treating the premises with an insecticide, taking care not to harm the safety of humans and pets or to contaminate food or cooking or eating utensils; and
- (d) whenever required by an Environmental Health Officer, treating any area with baits or other methods to eradicate cockroaches.

#### *Division 5—Argentine Ants*

##### **Interpretation**

106. In this Division, unless the context otherwise requires—

“Argentine Ant” means an ant belonging to the species *Irdomyrmex humilis*.

##### **Measures to be taken to keep premises free from Argentine Ants**

107. An owner or occupier of premises shall ensure that the premises are kept free from Argentine Ant colonies and shall—

- (a) immediately notify the Council of any ant nest located on the premises suspected to be an Argentine Ant nest;
- (b) take all steps to locate any nests if Argentine Ants are noticed in, on or about the premises;
- (c) properly treat all nests of Argentine Ants with an approved residual based insecticide; and
- (d) whenever required by an Environmental Health Officer—
  - (i) treat any area or infestation with an insecticide referred to in paragraph (c); and
  - (ii) remove any objects, including timber, firewood, compost or pot plants in accordance with a direction from an Environmental Health Officer.

*Division 6—European Wasps***Interpretation**

108. In this Division, unless the context otherwise requires—

“European Wasp” means a wasp *Vespula germanica*.

**Measures to be taken to keep premises free from European Wasp Nest**

109. An owner or occupier of premises shall ensure that the premises are kept free from European Wasp nests and shall—

- (a) immediately notify the Council of any wasp nest in, on or about the premises that is suspected to be a European Wasp nest;
- (b) follow any direction of an Environmental Health Officer for the purpose of destroying the wasps and their nest; and
- (c) assist an Environmental Health Officer, or his or her representative, to trace any nest that may be present in, on or about the premises.

*Division 7—Bee Keeping***Interpretation**

110. In this Division, unless the context otherwise requires—

“bees” means an insect belonging to any of the various hymenopterous insects of the super family Apoidea and commonly known as a bee;

“footpath” includes a path used by, or set aside or intended for use by, pedestrians, cyclists or both pedestrians and cyclists;

“hive” means a moveable or fixed structure, container or object in which a colony of bees is kept;

“lot” has the meaning given to it in the *Town Planning and Development Act 1928*, and located within a Townsite; and

“private street” has the meaning given to it by the *Local Government (Miscellaneous Provisions) Act 1960*.

**Limitation on numbers of Hives**

111. (1) A person shall not keep or permit the keeping of bees except on a lot in accordance with this Division.

(2) Subject to sub-sections (3) and (4), a person shall not keep or permit the keeping of bees in more than 2 hives on a lot.

(3) The Council may, upon written application, consent, with or without conditions, to a person keeping bees in more than 2 hives on a lot which is not zoned or classified for residential purposes.

(4) A person shall comply with any conditions imposed by the Council under sub-section (3).

**Restrictions on keeping of Bees in Hives**

112. A person shall not keep or permit the keeping of bees in a hive on a lot unless, at all times—

- (a) an adequate and permanent supply of water is provided on the lot within 10 metres of the hives;
- (b) the hive is kept—
  - (i) outside, and at least 10 metres from, any building other than a fence;
  - (ii) at least 10 metres from any footpath, street, private street or public place; and
  - (iii) at least 5 metres from the boundary of the lot; and
- (c) the hive is enclosed on all sides by a fence, wall or other enclosure.

**Bees which cause a nuisance not to be kept**

113. (1) A person shall not keep, or permit the keeping of, bees which cause a nuisance.

(2) The Council may direct any person to remove any bees or beehives which in the opinion of the Principal Environmental Health Officer are causing a nuisance.

(3) A person shall comply with a direction within the time specified.

*Division 8—Arthropod Vectors of Disease***Interpretation**

114. In this Division, unless the context otherwise requires—

“arthropod vectors of disease” includes—

- (a) fleas (*Siphonaptera*);
- (b) bedbugs (*Cimex lectularius*);
- (c) crab lice (*Phthirus pubis*);
- (d) body lice (*Pediculus humanus var. corporis*);
- (e) head lice (*Pediculus humanus var. capitis*); and
- (f) any other insect prescribed by the Council.

**Responsibility of the Owner or Occupier**

115. The owner or occupier of premises shall—

- (a) keep the premises and any person residing in or on the premises free from any vectors of disease; and
- (b) comply with the direction of an Environmental Health Officer to treat the premises, or anything on the premises, for the purpose of destroying any vectors of disease.

**PART 7—INFECTIOUS DISEASES***Division 1—General Provisions***Environmental Health Officer may visit, inspect and report**

116. An Environmental Health Officer—

- (a) may visit and inspect any house, its occupants, fixtures and fittings; and
- (b) who has reason to believe that there has been a breach of the Act, any regulation made under the Act or these local laws relating to infectious diseases, shall, as soon as possible, submit a written report on the matter to the Council.

**Requirements on owner or occupier to clean, disinfect and disinfest**

117. (1) The Council or the Principal Environmental Health Officer may, by notice in writing, direct an owner or occupier of premises, within the time and in the manner specified in the notice, to clean, disinfect and disinfest—

- (a) the premises; or
- (b) such things in or on the premises as are specified in the notice,

or both, to the satisfaction of an Environmental Health Officer.

(2) An owner or occupier shall comply with a notice given under sub-section (1).

**Environmental Health Officer may disinfest or disinfect premises**

118. (1) Where the Council or the Medical Officer is satisfied that any case of infectious disease has occurred on any premises, the Council or the Medical Officer may direct an Environmental Health Officer, other Council officer or other person to disinfest and disinfect the premises or any part of the premises and anything in or on the premises.

(2) An owner or occupier of premises shall permit, and provide access to enable, an Environmental Health Officer, other Council officer or other person to carry out the direction given under sub-section (1).

(3) The Council may recover, in a court of competent jurisdiction, the cost of carrying out the work under this section from the owner or occupier of the premises in or on which the work was carried out.

(4) The Council shall not be liable to pay compensation or damages of any kind to the owner or occupier of premises in relation to any action taken by the Council or any of its staff or employees under this section.

**Insanitary houses, premises and things**

119. (1) An owner or occupier of any house or premises shall maintain the house or premises free from any insanitary condition or thing.

(2) Where the Council considers that a house is insanitary, it may, by notice in writing, direct an owner of the house, within the time and in the manner specified in the notice, to destroy or amend the house.

(3) Where an Environmental Health Officer considers that—

- (a) a house or premises is not being maintained in a sanitary condition; or
- (b) any thing is insanitary,

the officer may, by notice in writing, direct, as the case may be—

- (i) the owner or occupier of the house or premises to amend any insanitary condition; or
- (ii) the owner or occupier of the thing to destroy or amend it,

within the time and in the manner specified in the notice.

(4) A person to whom a notice has been given under sub-sections (2) or (3) shall comply with the terms of the notice.

**Medical Officer may authorise disinfecting**

120. (1) Where the Medical Officer believes that a person is or may be infected by an infectious disease, the Officer may direct the person to have his or her body, clothing and effects disinfected at a place and in a manner directed by the Medical Officer.

(2) A person shall comply with any direction of the Medical Officer under this section.

**Persons in contact with an infectious disease sufferer**

121. If a person in any house is, or is suspected of, suffering from an infectious disease, any occupant of the house or any person who enters or leaves the house—

- (a) shall obey such instructions or directions as the Council or the Medical Officer may issue;
- (b) may be removed, at the direction of the Council or the Medical Officer to isolation in an appropriate place to prevent or minimise the risk of the infection spreading; and
- (c) if so removed, shall remain in that place until the Medical Officer otherwise directs.

**Declaration of infected house or premises**

122. (1) To prevent or check the spread of infectious disease, the Council or the Medical Officer may from time to time declare any house or premises to be infected.

(2) A person shall not enter or leave any house or premises declared to be infected without the written consent of the Medical Officer or the Principal Environmental Health Officer.

**Destruction of infected animals**

123. (1) The Principal Environmental Health Officer, upon being satisfied that an animal is or may be infected or is liable to be infected or to convey infection may, by notice in writing, direct that the animal be examined by a registered veterinary officer and all steps taken to enable the condition to be controlled or eradicated or the animal destroyed and disposed of—

- (a) in the manner and within the time specified in the notice; and
- (b) by the person in whose possession, or upon whose premises, the animal is located.

(2) A person who has in his or her possession or upon premises occupied by him or her, an animal which is the subject of a notice under sub-section (1) shall comply with the terms of the notice.

**Disposal of a body**

124. (1) An occupier of premises in or on which is located the body of a person who has died of an infectious disease shall, subject to sub-section (2), cause the body to be buried or disposed of in such manner, within such time and with such precautions as may be directed by the Medical Officer.

(2) A body shall not be removed from premises where death occurred except to a cemetery or morgue.

**Council may carry out work and recover costs**

125. (1) Where—

- (a) a person is required under this Division or by a notice given under this Division, to carry out any work; and
- (b) that person fails or neglects to comply with the requirement,

that person commits an offence and the Council may carry out the work or arrange for the work to be carried out by another.

(2) The costs and expenses incurred by the Council in the execution of a power under this section may be recovered in a court of competent jurisdiction from the person referred to in sub-section (1).

(3) The Council shall not be liable to pay compensation or damages of any kind to the person referred to in sub-section (1) in relation to any action taken by the Council under this section.

*Division 2—Disposal of used condoms and needles***Disposal of used condoms**

126. (1) An occupier of premises on or from which used condoms are produced shall ensure that the condoms are—

- (a) placed in a sealed impervious container and disposed of in a sanitary manner; or
- (b) disposed of in such a manner as may be directed by the Principal Environmental Health Officer.

(2) A person shall not dispose of a used condom in a public place except in accordance with sub-section (1).

**Disposal of used needles**

127. A person shall not dispose of a used hypodermic syringe or needle in a public place unless it is placed in an impenetrable, leak-proof container and deposited in a refuse receptacle.

*Division 3—Skin Penetration***Interpretation**

128. In this Division, unless the context otherwise requires—

“Code of Practice for Skin Penetration Procedures” means the Code of Practice for Skin Penetration Procedures as published by the Health Department of W.A.

**Duties on Practitioner**

129. A person shall not carry out any process or procedure involving skin penetration, other than in accordance with the *Health (Skin Penetration) Regulations 1987* and the Code of Practice For Skin Penetration Procedures.

**PART 8—LODGING HOUSES***Division 1—Registration***Interpretation**

130. (1) In this Part, unless the context otherwise requires—

“bed” means a single sleeping berth only. A double bed provided for the use of couples, shall have the same floor space requirements as two single beds;

“bunk” means a sleeping berth comprising one of two arranged vertically;

“dormitory” means a building or room utilised for sleeping purposes at a short term hostel or recreational campsite;

“keeper” means a person whose name appears on the register of keepers, in respect of a lodging house, as the keeper of that lodging house;

“lodger” means a person who obtains, for hire or reward, board or lodging in a lodging house;

“lodging house” includes a recreational campsite, a serviced apartment and a short term hostel;

“manager” means a person duly appointed by the keeper in accordance with this Division to reside in, and have the care and management of, a lodging house;

“recreational campsite” means a lodging house—

(a) situated on a campsite principally used for—

(i) recreational, sporting, religious, ethnic or educational pursuits; or

(ii) conferences or conventions; and

(b) where the period of occupancy of any lodger is not more than 14 consecutive days, and includes youth camps, youth education camps, church camps and riding schools;

“register of lodgers” means the register kept in accordance with Section 157 of the Act and this Part;

“resident” means a person, other than a lodger, who resides in a lodging house;

“serviced apartment” means a lodging house in which each sleeping apartment, or group of sleeping apartments in common occupancy, is provided with its own sanitary conveniences and may have its own cooking facilities;

“short term hostel” means a lodging house where the period of occupancy of any lodger is not more than 14 consecutive days and shall include youth hostels and backpacker hostels; and

“vector of disease” means an arthropod or rodent that transmits, by biological or mechanical means, an infectious agent from a source or reservoir to a person, and includes fleas, bedbugs, crab lice and head lice.

(2) Where in this Part an act is required to be done or forbidden to be done in relation to any lodging house, the keeper of the lodging house has, unless the contrary intention appears, the duty of causing to be done the act so required to be done, or of preventing from being done the act so forbidden to be done, as the case may be.

#### **Lodging House not to be kept unless registered**

131. A person shall not keep or cause, suffer or permit to be kept a lodging house unless—

(a) the lodging house is constructed in accordance with the requirements of this Part;

(b) the lodging house is registered by the Council under section 133;

(c) the name of the person keeping or proposing to keep the lodging house is entered in the register of keepers; and

(d) either—

(i) the keeper; or

(ii) a manager who, with the written approval of the Principal Environmental Health Officer, has been appointed by the keeper to have the care and management of the lodging house whenever there is one or more lodgers in this lodging house.

resides or intends to reside continuously in the lodging house.

#### **Application for registration**

132. An application for registration of a lodging house shall be—

(a) in the form prescribed in Schedule 1;

(b) duly completed and signed by the proposed keeper; and

(c) accompanied by—

(i) the fee prescribed in Schedule 13; and

(ii) detailed plans and specifications of the lodging house.

#### **Approval of application**

133. The Council may approve, with or without conditions, an application under section 132 by issuing to the applicant a certificate in the form of Schedule 2.

#### **Renewal of registration**

134. A person who keeps a lodging house which is registered under this Part shall—

(a) during the month of June in each year apply to the Council for the renewal of the registration of the lodging house; and

(b) pay the fee prescribed in Schedule 13 at the time of making each application for renewal.

#### **Notification upon sale or transfer**

135. If the owner of a lodging house sells or transfers or agrees to sell or transfer the lodging house to another person, he or she shall, within 14 days of the date of sale, transfer or agreement, give to the Chief Executive Officer, in the form of Schedule 3 written notice of the full name, address and occupation of the person to whom the lodging house has been, or is to be, sold or transferred.



**Revocation of registration**

136. (1) Subject to sub-section (3), the Council may, at any time, revoke the registration of a lodging house for any reason which, in the opinion of the Council, justifies the revocation.

(2) Without limiting the generality of sub-section (1), the Council may revoke a registration upon any one or more of the following grounds—

- (a) that the lodging house has not, to the satisfaction of Council, been kept free from vectors of disease or in a clean, wholesome and sanitary condition;
- (b) that the keeper has—
  - (i) been convicted of an offence against these local laws in respect of the lodging house;
  - (ii) not complied with a requirement of this Part; or
  - (iii) not complied with a condition of registration.
- (c) that the Council, having regard to a report from the Police Service, is satisfied that the keeper or manager is not a fit and proper person; and
- (d) that, by reason of alterations or additions or neglect to repair and renovate, the condition of the lodging house is such as to render it, in the opinion of the Principal Environmental Health Officer, unfit to remain registered.

(3) Before revoking the registration of a lodging house under this section, the Council shall give notice to the keeper requiring him or her, within a time specified in the notice, to show cause why the registration should not be revoked.

(4) Whenever the Council revokes the registration of a lodging house, it shall give the keeper notice of the revocation and the registration shall be revoked as from the date on which the notice is served on the keeper.

*Division 2—Construction and Use Requirements***General Construction Requirements**

137. The general construction requirements of a lodging house shall comply with the Building Code.

**Insect Screening**

138. The keeper shall provide and maintain in good working order and conditions windows and external doors that are screened with wire mesh having openings no larger than 1.2 millimetres.

**Sanitary conveniences**

139. (1) A keeper shall maintain in good working order and condition and in convenient positions on the premises—

- (a) toilets; and
- (b) bathrooms, each fitted with a shower, bath and wash basin,

in accordance with the requirements of the Building Code.

(2) A bathroom or toilet which is used as a private bathroom or toilet to the exclusion of other lodgers or residents shall not be counted for the purposes of sub-sections (1).

(3) Each bath, shower and hand wash basin shall be provided with an adequate supply of hot and cold water.

(4) The walls of each shower and bath shall be of an impervious material to a minimum height of 1.8 metres above the floor level.

(5) Each toilet and bathroom shall—

- (a) be so situated, separated and screened as to ensure privacy;
- (b) be apportioned to each sex;
- (c) have a distinct sign displayed in a prominent position denoting the sex for which the toilet or bathroom is provided; and
- (d) be provided with adequate electric lighting.

(6) Paragraphs 5(b) and 5(c) do not apply to a serviced apartment.

**Laundry**

140. (1) A keeper shall—

- (a) subject to sub-section (2)—
  - (i) in the case of a recreational campsite, provide on the premises a laundry consisting of at least 45 litre stainless steel trough; and
  - (ii) in any other case, provide on the premises a laundry unit for each 15 lodgers;
- (b) at all times maintain each laundry in a proper sanitary condition and in good repair;
- (c) provide an adequate supply of hot and cold water to each wash trough, sink, copper and washing machine; and
- (d) ensure that the floor area of each laundry is properly surfaced with an even fall to a floor waste.

(2) The Principal Environmental Health Officer may approve the provision of a reduced number of laundry units if suitable equipment of a commercial type is installed.



(3) In this section—

“laundry unit” means a group of facilities consisting of—

- (a) a washing machine with a capacity of not less than 4 kilograms of dry clothing;
- (b) one wash trough of not less than 35 litres capacity, connected to both hot and cold water; and
- (c) either an electric drying cabinet or not less than 30 metres of clothes line, and for which a hot water system is provided that—
- (d) is capable of delivering 136 litres of water per hour at a temperature of at least 75 degrees C for each washing machine provided with the communal facilities; and
- (e) has a delivery rate of not less than 18 litres per minute to each washing machine.

#### **Kitchen**

141. The keeper of a lodging house shall provide in that lodging house a kitchen which—

- (a) has a minimum floor area of—
  - (i) where lodgers prepare their own meals—0.65 square metres per person;
  - (ii) where meals are provided by the keeper or manager—0.35 square metres per person; or
  - (iii) where a kitchen and dining room are combined—1 square metre per person, but in any case not less than 16 square metres;
- (b) has adequate—
  - (i) food storage facilities and cupboards to prevent contamination of food, or cooking or eating utensils, by dirt, dust, flies or other vectors of disease of any kind; and
  - (ii) refrigerator space for storage of perishable goods;
- (c) complies with the requirements of the *Health (Food Hygiene) Regulations 1993*; and
- (d) has a wash hand basin and a double bowl sink, each provided with an adequate supply of hot and cold water.

#### **Cooking Facilities**

142. (1) The keeper of a lodging house where lodgers prepare their own meals shall provide a kitchen with electrical, gas or other stoves and ovens approved by the Principal Environmental Health Officer in accordance with the following table—

NO. OF LODGERS	OVENS	4 BURNER STOVES
1—15	1	1
16—30	1	2
31—45	2	3
46—60	2	4
Over 60	2	4 + 1 for each additional 15 lodgers (or part thereof) over 60

(2) The keeper of a lodging house where meals are provided by the keeper or manager shall provide a kitchen with cooking appliances of a number and type approved by the Principal Environmental Health Officer.

#### **Dining Room**

143. The keeper of a lodging house shall provide in that lodging house a dining room—

- (a) located in close proximity to, or combined with, the kitchen;
- (b) the floor area of which shall be not less than the greater of—
  - (i) 0.5 square metres per person; or
  - (ii) 10 square metres; and
- (c) which shall be—
  - (i) adequately furnished to accommodate, at any one time, half of the number of lodgers; and
  - (ii) provided with a suitable floor covering.

#### **Lounge Room**

144. The keeper of a lodging house shall provide in that lodging house a lounge room—

- (a) with a floor area of—
  - (i) where the lounge is not combined with the dining room—not less than 0.6 square metres per person; or
  - (ii) where the lounge room is combined with a dining room—not less than 1.2 square metres per person,

but in either case having a minimum of 13 square metres; and

- (b) which shall be—
  - (i) adequately furnished to accommodate, at any one time, half of the number of lodgers; and
  - (ii) provided with a suitable floor covering.

**Fire prevention and control**

145. (1) A keeper shall—

- (a) in each passage in the lodging house provide an emergency light—
  - (i) in such a position and of such a pattern, as approved by the Principal Environmental Health Officer; and
  - (ii) which shall be kept separate from the general lighting system and kept illuminated during the hours of darkness;
- (b) provide an approved fire blanket positioned within 2 metres of the cooking area in each kitchen; and
- (c) ensure that each exit sign and fire fighting appliance is clearly visible, accessible and maintained in good working order at all times.

(2) A keeper shall ensure that all buildings comprising the lodging house are fitted with fire protection equipment as advised by the Western Australian Fire Brigades Board and approved by the Council.

**Obstruction of passages and stairways**

146. A keeper shall not cause, suffer or permit furniture, fittings or other things to be placed either temporarily or permanently in or on—

- (a) a stairway, stair landing, fire-escape, window or common passageway; or
- (b) part of the lodging house in common use or intended or adapted for common use,

in such a manner as to form an obstruction to the free passage of lodgers, residents or persons in or occupying the lodging house.

**Fitting of locks**

147. A person shall not fit, or cause or permit to be fitted, to an exit door a lock or other device which prevents the door being opened from within a lodging house.

**Restriction on use of rooms for sleeping**

148. (1) Subject to sub-section (3) and section 163, a keeper shall not use or permit to be used as a sleeping apartment a room in a lodging house—

- (a) which contains food;
- (b) which contains or is fitted with a cooking appliance or kitchen sink;
- (c) which is used as a kitchen, scullery, store room, dining room, general sitting room or lounge room or for the preparation or storage of food;
- (d) which is not reasonably accessible without passing through a sleeping or other room in the private occupation of another person;
- (e) which, except in the case of a short term hostel or a recreational campsite, contains less than 5.5 square metres of clear space for each lodger occupying the room;
- (f) which is naturally illuminated by windows having a ratio of less than 0.1 square metre of unobstructed glass to every 1.0 square metre of floor area;
- (g) which is ventilated at a ratio of less than 0.5 square metre of unobstructed ventilating area to every 10 square metres of floor area;
- (h) in which the lighting or ventilation referred to in paragraphs (f) and (g) is obstructed or is not in good and efficient order;
- (i) which is not free from internal dampness;
- (j) of which any part of the floor is below the level of the adjoining ground; or
- (k) the floor of which is not fitted with an approved carpet or vinyl floor covering or other floor treatment approved by the Principal Environmental Health Officer.

(2) For the purposes of this section, two children under the age of 10 years shall be counted as one lodger.

(3) Paragraphs (a), (b) and (c) of sub-section (1) shall not apply to a serviced apartment.

**Sleeping Accommodation Short Term Hostels and Recreational Campsites**

149. (1) A keeper of a short term hostel or recreational campsite shall provide clear floor space of not less than—

- (a) 4 square metres per person in each dormitory utilising beds; and
- (b) 2.5 square metres per person in dormitories utilising bunks.

(2) The calculation of floor space in sub-section (1) shall exclude the area occupied by any large items of furniture, such as wardrobes, but may include the area occupied by beds.

(3) The minimum height of any ceiling in a short term hostel or recreational campsite shall be 2.4 metres in any dormitory utilising beds and 2.7 metres in any dormitory utilising bunks.

(4) The minimum floor area requirements in sub-section (1) will only apply if there is ventilation, separation distances, fire egress and other safety requirements in accordance with the Building Code.

(5) The keeper of any short term hostel or recreational campsite shall provide:

- (a) fixed outlet ventilation at a ratio of 0.15 square metres to each 10 square metres of floor area of the dormitories. Dormitories shall be provided with direct ventilation to the open air from a point within 230 millimetres of the ceiling level through a fixed open window or vents, carried as direct to the open air as is practicable; or
- (b) mechanical ventilation in lieu of fixed ventilation, subject to the Council's approval.

- (6) The keeper of any short term hostel or recreational campsite shall provide—
- (a) beds with a minimum size of—
    - (i) in short term hostels—800 millimetres x 1.9 metres; or
    - (ii) in recreational campsites—750 millimetres x 1.85 metres; and
  - (b) storage space for personal effects, including backpacks, so that cleaning operations are not hindered and access spaces are not obstructed.
- (7) The keeper of any short term hostel or recreational campsite shall:
- (a) arrange at all times a distance of 750 millimetres between beds and a distance of 900 millimetres between bunks;
  - (b) ensure that where bed or bunk heads are placed against the wall on either side of a dormitory, there is a passageway of at least 1.35 metres between each row of beds and a passageway of at least 2 metres between each row of bunks. The passageway shall be kept clear of obstruction at all times; and
  - (c) ensure all doors, windows and ventilators are kept free of obstruction.
- (8) The keeper of a short term hostel or recreational campsite shall ensure that—
- (a) materials used in dormitory areas comply with AS 1530.2 and AS 1530.3 as follows—
    - drapes, curtains, blinds and bed covers:
      - a maximum Flammability Index of 6;
    - upholstery & bedding—
      - a maximum Spread of Flame Index of 6;
      - a maximum Smoke Developed Index of 5;
    - floor coverings—
      - a maximum Spread of Flame Index of 7;
      - a maximum Smoke Developed Index of 5.

Fire retardant coatings used to make a material comply with these indices must be—

    - (i) certified by the manufacturer as approved for use with the fabric to achieve the required indices;
    - (ii) certified by the manufacturer to retain its fire retardancy effect after a minimum of 5 commercial dry cleaning or laundering operations carried out in accordance with AS 2001.5.4-1987, Procedure 7A, using ECE reference detergent; and
    - (iii) certified by the applicator as having been carried out in accordance with the manufacturer's specification;
  - (b) emergency lighting is provided in accordance with the Building Code;
  - (c) no person shall smoke in any dormitory, kitchen, or dining room, within a short term hostel or recreational campsite. The keeper may permit smoking in a meeting or assembly hall area, within a short term hostel; and
  - (d) all mattresses are fitted with mattress protectors.

#### **Furnishing etc. of sleeping apartments**

150. (1) A keeper shall—
- (a) furnish each sleeping apartment with a sufficient number of beds and sufficient bedding of good quality;
  - (b) ensure that each bed—
    - (i) has a bed head, mattress and pillow; and
    - (ii) is provided with a pillow case, two sheets, a blanket or rug and, from the 1st day of May to the 30th day of September, not less than one additional blanket or rug; and
  - (c) furnish each bedroom so that there are adequate storage facilities for belongings within the room.
- (2) A keeper shall not cause, suffer or permit any tiered beds or bunks to be used in a sleeping apartment other than in a lodging house used exclusively as a short term hostel or recreational campsite.

#### **Ventilation**

151. (1) If, in the opinion of an Environmental Health Officer, a kitchen, bathroom, toilet, laundry or habitable room is not adequately or properly ventilated, he or she may direct the keeper to provide a different or additional method of ventilation.
- (2) The keeper shall comply with any direction given under sub-section (1) within such time as directed.

#### **Numbers to be placed on Doors**

152. (1) A keeper shall place or cause to be placed on the outside of the doors of all rooms available to lodgers in the lodging house, serial numbers so that—
- (a) the number "1" is placed on the outside of the door of the room nearest to the front or main entry door of the lodging house; and
  - (b) the numbers continue in sequence throughout each floor (if there is more than one) of the lodging house.

- (2) The numbers to be placed on the doors under sub-section (1) shall be—
- (a) not less than 40 millimetres in height;
  - (b) 1.5 metres from the floor; and
  - (c) permanently fixed either by being painted on the doors or shown by other legible means.

*Division 3—Management and Care*

**Keeper or manager to reside in the lodging house**

153. Whenever there is one or more lodgers in a lodging house, a keeper or manager shall—
- (a) reside continuously in the lodging house; and
  - (b) not be absent from the lodging house for more than 48 consecutive hours unless he or she arranges for a reputable person to have the care and management of the lodging house.

**Register of lodgers**

154. (1) A keeper shall keep a register of lodgers in the form of Schedule 4.
- (2) The register of lodgers shall be—
- (a) kept in the lodging house; and
  - (b) open to inspection at any time on demand by any member of the Police Service or by an Environmental Health Officer.

**Keeper report**

155. A keeper shall, whenever required by the Council, report to the Council, in the form of Schedule 5, the name of each lodger who lodged in the lodging house during the preceding day or night.

**Certificate in respect of sleeping accommodation**

156. (1) An Environmental Health Officer may issue to a keeper a certificate, in respect of each room, which shall be in the form of Schedule 6 or 7.
- (2) The certificate issued under sub-section (1) shall specify the maximum number of persons who shall be permitted to occupy each room as a sleeping apartment at any one time.
- (3) When required by the Principal Environmental Health Officer, a keeper shall exhibit the certificate issued under this section in a conspicuous place in the room to which the certificate refers.
- (4) A person shall not cause, suffer or permit a greater number of persons than is specified on a certificate issued under this section to occupy the room to which it refers.

**Duplicate keys and inspection**

157. Each keeper and manager of a lodging house shall—
- (a) retain possession of a duplicate key to the door of each room; and
  - (b) when required by an Environmental Health Officer, open the door of any room for the purposes of inspection by the Officer.

**Room occupancy**

158. (1) A keeper shall not—
- (a) cause, suffer or permit more than the maximum number of persons permitted by the Certificate of Registration of the lodging house to be lodged at any one time in the lodging house;
  - (b) cause, suffer or permit to be placed or kept in any sleeping apartments—
    - (i) a larger number of beds; or
    - (ii) a larger quantity of bedding,than is required to accommodate and provide for the maximum number of persons permitted to occupy the sleeping apartment at any one time; and
  - (c) use or cause, suffer or permit to be used for sleeping purposes a room that—
    - (i) has not been certified for that purpose; and
    - (ii) the Council or the Medical Officer has forbidden to be used as a sleeping apartment.
- (2) For the purpose of this section, two children under 10 years of age shall be counted as one lodger.

**Infections disease**

159. A keeper shall immediately after becoming aware that a lodger or resident is suffering from a notifiable infectious disease notify the Principal Environmental Health Officer.

**Maintenance of a room by a lodger or resident**

160. (1) A keeper may permit, or contract with, a lodger or resident to service, clean or maintain the room or rooms occupied by the lodger or resident.
- (2) Where permission is given or a contract entered into under sub-section (1), the keeper shall—
- (a) inspect each room the subject of the permission or agreement at least once a week; and
  - (b) ensure that each room is being maintained in a clean condition.
- (3) A lodger or resident who contracts with a keeper to service, clean or maintain a room occupied by him or her, shall maintain the room in a clean condition.

**Cleaning and maintenance requirements**

161. (1) A keeper of a lodging house shall—

- (a) maintain in a clean, sound and undamaged condition—
  - (i) the floor, walls, ceilings, woodwork and painted surfaces;
  - (ii) the floor coverings and window treatments; and
  - (iii) the toilet seats;
- (b) maintain in a clean condition and in good working order—
  - (i) all fixtures and fittings; and
  - (ii) windows, doors and door furniture;
- (c) ensure that the internal walls of each bathroom and toilet are painted so as to maintain a smooth impervious washable surface;
- (d) whenever there is one or more lodgers in a lodging house ensure that the laundry floor is cleaned daily;
- (e) ensure that—
  - (i) all bed linen, towels, and house linen in use is washed at least once a week;
  - (ii) within a reasonable time of a bed having been vacated by a lodger or resident, the bed linen is removed and washed;
  - (iii) a person does not occupy a bed which has been used by another person unless the bed has been provided with clean bed linen;
  - (iv) all beds, bedsteads, blankets, rugs, covers, bed linen, towels and house linen are kept clean, in good repair and free from vectors of disease;
  - (v) when any vectors of disease are found in a bed, furniture, room or sleeping apartment, immediate effective action is taken to eradicate the vectors of disease; and
  - (vi) a room which is not free from vectors of disease is not used as a sleeping apartment;
- (f) when so directed by the Principal Environmental Health Officer, ensure that—
  - (i) a room, together with its contents, and any other part of the lodging house, is cleaned and disinfected; and
  - (ii) a bed or other article of furniture is removed from the lodging house and properly disposed of;
- (g) ensure that the yard is kept clean at all times;
- (h) provide all bedrooms, passages, common areas, toilets, bathrooms and laundries with adequate lighting; and
- (i) comply with any direction, whether orally or in writing, given by the Principal Environmental Health Officer or an Environmental Health Officer.

(2) In this section—

‘bed linen’ includes sheets and pillow cases and in the case of a short term hostel or a recreational campsite, mattress protectors.

**Responsibilities of lodgers and residents**

162. A lodger or resident shall not—

- (a) use any room available to lodgers—
  - (i) as a shop, store or factory; or
  - (ii) for manufacturing or trading services;
- (b) keep or store in or on the lodging house any goods or materials which are inflammable, obnoxious or offensive;
- (c) use a bath or wash hand basin other than for ablutionary purposes;
- (d) use a bathroom facility or fitting for laundry purposes;
- (e) use a sink installed in a kitchen or scullery for any purpose other than the washing and cleaning of cooking and eating utensils, other kitchenware and culinary purposes;
- (f) deposit rubbish or waste food other than into a proper rubbish receptacle;
- (g) in a kitchen or other place where food is kept—
  - (i) wash or permit the washing of clothing or bedding; or
  - (ii) keep or permit to be kept any soiled clothing or bedding;
- (h) subject to section 163—
  - (i) keep, store, prepare or cook food in any sleeping apartment; or
  - (ii) unless sick or invalid and unable to leave a sleeping apartment for that reason, use a sleeping apartment for dining purposes;
- (i) place or keep, in any part of a lodging house, any luggage, clothing, bedding or furniture, that is infested with vectors of disease;
- (j) store or keep such a quantity of furniture, material or goods within the lodging house—
  - (i) in any kitchen, living or sleeping apartment so as to prevent the cleaning of the floors, walls, fittings or fixtures; or
  - (ii) in a sleeping apartment so as to decrease the air space to less than the minimum required by this Part;



- (k) obstruct or prevent the keeper or manager from inspecting or examining the room or rooms occupied by the lodger or resident; and
- (l) fix any fastener or change any lock to a door or room without the written approval of the keeper.

**Approval for storage of food**

163. (1) The Principal Environmental Health Officer may—

- (a) upon written application from a keeper, approve the storage of food within a refrigerator or sealed container in a sleeping apartment; and
- (b) withdraw the approval if a nuisance or vector of disease infestation is found to exist in the lodging house.

(2) The keeper of a serviced apartment may permit the storage and consumption of food within that apartment if suitable storage and dining facilities are provided.

**PART 9—OFFENSIVE TRADES***Division 1—General***Interpretation**

164. In this Part, unless the context otherwise requires—

- “occupier” in relation to premises includes the person registered as the occupier of the premises in the Schedule 12 Certificate of Registration;
- “offensive trade” means any trades as defined by section 186 of the Act; and
- “premises” includes houses.

**Consent to Establish an Offensive Trade**

165. (1) A person seeking the consent of the Council under section 187 of the Act to establish an offensive trade shall—

- (a) advertise notice of his intention to apply for consent in accordance with section 166; and
- (b) lodge with the Chief Executive Officer an application in the form of Schedule 10.

(2) A person who makes a false statement in an application under this section shall be guilty of an offence.

**Notice of Application**

166. A notice required under section 165 (1)(a) shall—

- (a) contain the name and address of the person who intends to make the application;
- (b) contain a description of the nature of the offensive trade;
- (c) contain details of the premises in or upon which it is proposed to carry on the proposed trade; and
- (d) appear in a local newspaper at least two weeks but not more than one month before the application under section 165 (1)(b) is lodged with the Chief Executive Officer.

**Registration of Premises**

167. An application for the registration of premises pursuant to section 191 of the Act shall be—

- (a) in the form of Schedule 11;
- (b) accompanied by:
  - (i) the fee prescribed in the *Offensive Trade (Fees) Regulations 1976*; and
  - (ii) a comprehensive management plan; and
- (c) lodged with the Chief Executive Officer.

**Certificate of Registration**

168. Upon the registration of premises for the carrying on of an offensive trade, the Council shall issue to the applicant a certificate in the form of Schedule 12.

**Change of Occupier**

169. Where there is a change of occupier of the premises registered pursuant to this Division, the new occupier shall forthwith notify the Chief Executive Officer in writing of such change.

**Alterations to Premises**

170. While any premises remain registered under this Division, a person shall not, without the written permission of the Council, make or permit any change or alteration whatever to the premises.

**Occupier Includes Employee**

171. Where in any section contained in this Part a duty is imposed upon the occupier of premises in or upon which an offensive trade is carried on, the reference to the occupier shall be interpreted to include the employees of the occupier and any employee committing a breach of any provision of this Part shall be liable to the same penalties as if he were the occupier.



*Division 2—General Duties of an Occupier***Interpretation**

172. In this Division, unless the context otherwise requires—

“occupier” means the occupier, or where there is more than one occupier, each of the occupiers of the premises in or upon which an offensive trade is carried on; and

“the premises” means those premises in or upon which an offensive trade is carried on.

**Cleanliness**

173. The occupier shall—

- (a) keep or cause to be kept in a clean and sanitary condition and in a state of good repair the floors, walls and ceilings and all other portions of the premises;
- (b) keep or cause to be kept in a clean and sanitary condition and in a state of good repair all fittings, fixtures, appliances, machinery, implements, shelves, counters, tables, benches, bins, cabinets, sinks, drain boards, drains, grease traps, tubs, vessels and other things used on or in connection with the premises;
- (c) keep the premises free from any unwholesome or offensive odour arising from the premises;
- (d) maintain in a clean and tidy condition all yards, footpaths, passage ways, paved areas, stores or outbuildings used in connection with the premises; and
- (e) clean daily and at all times keep and maintain all sanitary conveniences and all sanitary fittings and grease traps on the premises in a clean and sanitary condition.

**Rats and Other Vectors of Disease**

174. The occupier shall—

- (a) ensure that the premises are kept free from rodents, cockroaches, flies and other vectors of disease; and
- (b) provide in and on the premises all effective means and methods for the eradication and prevention of rodents, cockroaches, flies and other vectors of disease.

**Sanitary Conveniences and Wash Basins**

175. The occupier shall provide on the premises in an approved position sufficient sanitary conveniences and wash hand basins, each with an adequate supply of hot and cold water for use by employees and by all other persons lawfully upon the premises.

**Painting of Walls etc.**

176. The occupier shall cause the internal surface of every wall, the underside of every ceiling or roof and all fittings as may be directed in and on the premises to be cleaned and painted when instructed by an Environmental Health Officer.

**Effluvia, Vapours or Gases**

177. The occupier shall provide, use and maintain in a state of good repair and working order, appliances capable of effectively destroying or of rendering harmless all offensive effluvia, vapours or gases arising in any process of his business or from any material, residue or other substance which may be kept or stored upon the premises.

**Offensive Material**

178. The occupier shall—

- (a) provide on the premises impervious receptacles of sufficient capacity to receive all offensive material and trade refuse produced upon the premises in any one day;
- (b) keep airtight covers on the receptacles, except when it is necessary to place something in or remove something from them;
- (c) cause all offensive material and trade refuse to be placed immediately in the receptacles;
- (d) cause the contents of the receptacles to be removed from the premises at least once in every working day and at such more frequent intervals as may be directed by the Principal Environmental Health Officer or whenever so directed by an Environmental Health Officer; and
- (e) cause all receptacles after being emptied to be cleaned immediately with an efficient disinfectant.

**Storage of Materials**

179. The occupier shall cause all material on the premises to be stored so as not to be offensive or injurious to health whether by smell or otherwise and so as to prevent the creation of a nuisance.

**Specified Offensive Trades**

180. (1) For the purposes of this section, “specified offensive trade” means one or more of the offensive trades carried on, in or connected with the following works or premises—

- (a) fat rendering premises;
- (b) fish premises; and
- (c) laundries, dry cleaning premises and dye works.

(2) Where premises are used for or in relation to a specified offensive trade, the occupier shall—

- (a) cause the floor of the premises to—
  - (i) be properly paved and drained with impervious materials;

- (ii) have a smooth surface; and
- (iii) have a fall to a bucket trap or spoon drain in such a way that all liquids falling on the floor shall be conducted by the trap or drain to a drain inlet situated inside the building where the floor is situated;
- (b) cause the angles formed by the walls with any other wall, and by the wall with the floor, to be coved to a radius of not less than 25 millimetres; and
- (c) cause all liquid refuse to be—
  - (i) cooled to a temperature not exceeding 26 degrees Celsius and in accordance with the *Metropolitan Water Supply, Sewerage and Drainage Bylaws 1981* before being discharged into any drain outlet from any part of the premises; and
  - (ii) directed through such screening or purifying treatment as the Principal Environmental Health Officer may from time to time direct.

### Directions

181. (1) The Principal Environmental Health Officer may give to the occupier directions to prevent or diminish the offensiveness of a trade or to safeguard the public health.

(2) The occupier shall comply with any directions given under this section.

### Other Duties of Occupier

182. In addition to the requirements of this Division, the occupier shall comply with all other requirements of this Part that apply to the particular offensive trade or trades carried on by him.

## *Division 3—Fat Rendering Establishments*

### Interpretation

183. In this Division, unless the context otherwise requires—

“fat rendering establishments” means a premises where edible fats including suet, dripping or premier jus are rendered down by any heat processing method; and

“the occupier” means the occupier of any premises on which the trade of fat rendering is carried on.

### Exhaust Ventilation

184. The occupier shall provide and maintain—

- (a) a hood which shall—
  - (i) be of an approved design and construction;
  - (ii) be situated so as to arrest all effluvia, odours and smoke from the process of fat rendering; and
  - (iii) extend a minimum of 150 millimetres beyond the length of each appliance; and
- (b) an exhaust ventilation system—
  - (i) the point of discharge of which shall be at least 1 metre above the ridge of a pitched roof or 3 metres above a flat roof and shall not be located within 6 metres of an adjoining property or any fresh air intake; and
  - (ii) which shall discharge in such manner and in such a position that no nuisance is created.

### Covering of Apparatus

185. External parts of the fat rendering apparatus shall be constructed or covered with smooth, non-corrosive and impervious material, devoid of holes, cracks and crevices.

### Rendering of Walls

186. The occupier shall cause each wall within a radius of 3 metres of the rendering apparatus or machinery to be rendered with a cement plaster with a steel float finish or other approved finish to a height of 2 metres, devoid of holes, cracks and crevices.

## *Division 4—Fish Premises*

### Interpretation

187. In this Division, unless the context otherwise requires—

“appliance” includes a utensil, an instrument, a cover, a container or apparatus;

“fish” means fresh fish, frozen fish, chilled fish and cooked fish, whether cleaned, uncleaned or part cleaned and includes crustaceans and molluscs, but does not include—

- (a) fish which has been cured, preserved, hermetically canned or treated to prevent putrefaction; or
- (b) cleaned fish supplied in cartons or packets by a packer and sold in such cartons or packets if they are at all times kept in a deep freeze refrigeration unit at a temperature not exceeding minus 15 degrees Celsius;

“fish premises” includes fish processing establishments, fish curing establishments and shellfish and crustacean processing establishments but does not include retail fish shops in which no significant fish processing occurs.

“fish transport vehicle” includes—

- (a) an appliance attached to, carried in or used in connection with a vehicle; and

- (b) a trailer and a portable box, used or designed to be used for the transport or storage of fish; and

“portable box” means a box for the transport or storage of fish and includes a fish transport vehicle.

#### **Fish Preparation Room**

188. (1) The occupier of a fish premises which requires a fish processing or preparation room shall ensure that this room complies with the following requirements—

- (a) the walls shall be constructed of brick or concrete with the internal surface rendered with a cement plaster with a steel float finish or other approved material and shall be devoid of holes, cracks and crevices;
  - (b) the floor shall be of concrete with a smooth, durable surface and shall be treated with an approved surface hardening process;
  - (c) the minimum floor area shall be 9 square metres;
  - (d) the room shall be furnished with a wash hand basin connected to a piped supply of hot and cold water; and
  - (e) the room shall be flyproofed and provided with ample light and ventilation.
- (2) The occupier shall ensure that all fish are prepared in the fish processing or preparation room and that room is to be used solely for that purpose.
- (3) The occupier of a fish premises shall provide, in or easily accessible from each fish preparation room, cleaning facilities consisting of a double bowl stainless steel wash trough of adequate size to accommodate the equipment and utensils used on the premises, connected to a piped supply of hot and cold water.

#### **Bench**

189. The occupier of a fish premises shall provide and maintain on the premises a separate stainless steel bench for the handling of fish.

#### **Disposal of Waste**

190. The occupier of a fish premises shall cause all offal and wastes, all rejected and unsaleable fish and any rubbish or refuse which is likely to be offensive or a nuisance to be—

- (a) placed in the receptacles referred to in section 178 and disposed of in accordance with that section; or
- (b) kept in a frozen state in an approved enclosure before its removal from the premises.

#### **Fish Containers**

191. The occupier of a fish premises shall not allow any box, basket or other container used for the transport of fish to—

- (a) remain on the premises longer than is necessary for it to be emptied; or
- (b) be kept so as to cause a nuisance or to attract flies.

#### **Cooking of Fish**

192. Where cooking of fish is carried out in a fish premises, the occupier shall provide and maintain—

- (a) a hood as set out in the *Health (Food Hygiene) Regulations 1993*, which shall be of an approved design and construction and so situated as to capture and remove all effluvia, odours and smoke from the process of cooking; and
- (b) an exhaust ventilation system—
  - (i) the point of discharge of which shall be at least 1 metre above the ridge of a pitched roof or 3 metres above a flat roof and shall not be located within 6 metres of an adjoining property or any fresh air intakes; and
  - (ii) which shall discharge in such manner and in such a position that no nuisance is created.

#### **Use of an Approved Portable Box**

193. An Environmental Health Officer may permit an approved portable box to be used for the transport or storage of fish.

#### **Fish Transport Vehicle**

194. A person shall not use a fish transport vehicle for the transport or storage of fish unless it is so constructed, equipped and maintained that—

- (a) the frame is made of metal or other approved material;
- (b) all internal surfaces—
  - (i) are made of metal or approved impervious plastic substance, which may include stainless steel, aluminium galvanised iron, fibreglass, or other material of similar strength and impermeable qualities;
  - (ii) are smoothly finished;
  - (iii) are rigidly secured with a solid backing; and
  - (iv) have floor and vertical angles coved with not less than a 9.5 millimetre radius, but, if all necessary floor joints are effectively sealed, the surface of the floor, or part of it, may be of an approved tread type track material;

- (c) internal horizontal joints made between metal sheeting are lapped from top to bottom and either—
  - (i) continuously welded; or
  - (ii) lapped with a minimum of 40 millimetres cover secured with blind rivets and sealed with a durable, non-absorbent sealing material;
- (d) the vehicle is effectively insulated with a stable insulating material;
- (e) the vehicle has, at the rear or side, doors that are made in the manner provided by paragraphs (a), (b), (c) and (d) of this section, are close fitting, and have a suitable locking device fitted;
- (f) the vehicle is fitted with shelves and grids, made of impervious material, in such a manner that the shelves and grids may be easily removed;
- (g) any containers used in the vehicle for fish are made of stainless steel, fibre glass or approved impervious plastic; and
- (h) the vehicle is in good repair and condition and is thoroughly clean.

*Division 5—Flock Factories*

**Interpretation**

195. In this Division, unless the context otherwise requires—

“flock factory” means any premises or place where flock is produced wholly or partly by tearing up or teasing, wadding, kapok, rags, cotton, linters, fibre, or other material used or likely to be used for the filling of mattresses, pillows, bedding, upholstery, cushions or substances used in packaging material or the manufacture of underfelt; and

“the occupier” means the occupier of a flock factory.

**New and Used Material**

196. (1) Subject to sub-section (2), the occupier shall not use for the manufacture of flock any material other than new material.

(2) Material other than new material may be used for the manufacture of flock if, before being used, every part of that material is subjected to moist heat maintained at a temperature of 100 degrees Celsius for at least 20 minutes.

**Collection and Removal of Dust**

197. The occupier shall provide effective means to prevent the escape into the open air of all dust or other material from the premises.

**Building Requirements**

198. The occupier shall cause each building on the premises to comply with the following requirements—

- (a) the floor shall be of concrete;
- (b) the walls shall be of concrete or brick and shall be finished internally with cement plaster with a steel float finish or other approved finish to a height of 2 metres; and
- (c) the ceiling or underside of the roof shall be of durable and non-absorbent material finished internally with a smooth surface.

**Unclean Rags**

199. A person shall not—

- (a) collect, deliver, offer for sale or sell for the manufacture of flock;
- (b) receive, store or deliver for the manufacture of flock; or
- (c) make flock from,

rags which are unclean or which have been taken from any refuse or rubbish or from any receptacle used for the storage or collection of refuse or rubbish.

**Bedding and Upholstery**

200. A person shall not, for the purpose of sale or in the course of any business, remake, renovate, tease, re-tease, fill, refill or repair any—

- (a) used bedding; or
  - (b) upholstery,
- which is unclean, offensive, or infested with vectors of disease, unless the—

- (i) material of which the bedding is made; or
- (ii) filling material of which the upholstery is made,

has been boiled for 30 minutes or otherwise effectively disinfected and cleaned.

*Division 6—Laundries, Dry Cleaning Establishments And Dye Works*

**Interpretation**

201. In this Division, unless the context otherwise requires—

“dry cleaning establishment”—

- (i) means premises where clothes or other articles are cleaned by use of solvents without using water; but

- (ii) does not include premises in which perchlorethylene or arklone is used as dry cleaning fluid in a machine operating on a full cycle and fully enclosed basis;

“dye works” means a place where articles are commercially dyed, but does not include dye works in which provision is made for the discharge of all liquid waste therefrom into a public sewer;

“exempt laundromat” means a premises in which—

- (a) laundering is carried out by members of the public using, on payment of a fee, machines or equipment provided by the owners or occupiers of those establishments;
- (b) laundering is not carried out by those owners or occupiers for or on behalf of other persons; and
- (c) provision is made for the discharge of all liquid waste therefrom into a public sewer;

“laundromat” means a public place with coin operated washing machines, spin dryers or dry cleaning machines; and

“laundry” means any place where articles are laundered by commercial grade machinery but does not include an exempt laundromat.

### **Receiving Depot**

202. An owner or occupier of premises shall not use or permit the premises to be used as a receiving depot for a laundry, dry cleaning establishment or dye works except with the written permission of the Principal Environmental Health Officer who may at any time by written notice withdraw such permission.

### **Reception Room**

203. (1) The occupier of a laundry, dry cleaning establishment or dye works shall—

- (a) provide a reception room in which all articles brought to the premises for treatment shall be received and shall not receive or permit to be received any such articles except in that room; and
- (b) cause such articles as may be directed by an Environmental Health Officer to be thoroughly disinfected to the satisfaction of the officer.

(2) A person shall not bring or permit food to be brought into the reception room referred to in this section.

### **Walls and Floors**

204. The occupier of a laundry, dry cleaning establishment or dye works shall cause—

- (a) the internal surfaces of all walls to be rendered with a cement plaster with a steel float finish or other approved material to a height of 2 metres and to be devoid of holes, cracks and crevices;
- (b) the floor to be impervious, constructed of concrete and finished to a smooth surface; and
- (c) every floor and wall of any building on the premises to be kept at all times in good order and repair, so as to prevent the absorption of any liquid which may be splashed or spilled or may fall and be deposited on it.

### **Laundry Floor**

205. The occupier of a laundry shall provide in front of each washing machine a non-corrosive grating, with a width of at least 910 millimetres, so constructed as to prevent any person from standing in water on the floor.

### **Escape of Dust**

206. The occupier of a dry cleaning establishment shall provide effective means to prevent the escape into the open air of all dust or other material from the premises.

### **Precautions Against Combustion**

207. The occupier of a dry cleaning establishment where volatile liquids are used shall take all proper precautions against combustion and shall comply with all directions given by an Environmental Health Officer for that purpose.

### **Trolleys**

208. The occupier of a dry cleaning establishment shall—

- (a) provide trolleys for the use of transporting dirty and clean linen; and
- (b) ensure that each trolley is—
  - (i) clearly designated to indicate the use for which it is intended;
  - (ii) lined internally with a smooth impervious non-absorbent material that is easily cleaned; and
  - (iii) thoroughly cleaned and disinfected on a regular basis.

### **Sleeping on Premises**

209. A person shall not use or permit any room in a laundry, dry cleaning establishment or dye works to be used for sleeping purposes.

### *Division 7—Abattoirs*

### **Construction**

210. An abattoir shall conform to the Australian Standards as required under the Food Hygiene Regulations 1993.



*Division 8—Piggeries***Interpretation**

211. In this Division, unless the context otherwise requires:

“piggery” means any building, enclosure or yard, in which one or more pigs are kept, bred, reared or fattened for purposes of trade, and shall include any portion of the premises to which pigs have access.

**Limitations to Registration**

212. No premises shall be registered as a piggery unless every portion of such piggery is—

- (a) greater than 200 metres from the lot boundary of the lot upon which the piggery is to be situated;
- (b) greater than 100 metres from any dwelling house, dairy or other premises where food for human consumption is prepared, stored or sold;
- (c) outside the gazetted townsites of Bindoon, Muchea and Wannamal and an area of 3 km wide surrounding and contiguous to the boundaries of each of these townsites; and
- (d) outside that land described as being part of the special rural and rural living zones in the Shire of Chittering Town Planning Scheme and an area 1 km wide surrounding and contiguous to the boundaries of the special rural and rural living zones.

**213. Conditions of Registration**

(1) Any person intending to establish a piggery within the district shall ensure the application made in the form of schedule 10 is accompanied by plans and specifications in duplicate of the proposed piggery including—

- (i) details of the approximate number of pigs to be kept.
- (ii) details of the drainage and effluent disposal system to be installed; and
- (iii) details of the method by which cleanliness of the piggery shall be maintained.

**Sties, Enclosures or Sheds**

214. (1) The occupier of every piggery shall provide either—

- (i) sties and enclosures;
- (ii) enclosures; or
- (iii) sheds

within which pigs shall be kept.

(2) Where sties and enclosures are provided—

- (a) the floor of every sty shall be properly paved with impervious materials, and every such floor shall have sufficient fall to a surface gutter, which shall—
  - (i) be constructed of similar materials;
  - (ii) be not less than 300 millimetres wide and 75 millimetres deep in the centre of its width;
  - (iii) extend the whole length of the sty; and
  - (iv) have sufficient fall so that it shall discharge all liquids falling upon the floor or upon the gutter into an impervious sump of sufficient capacity to receive at least one day's drainage.
- (b) the area of every enclosure appurtenant to a sty or group of sties shall be not less than three times the area of the sty or group of sties to which it is appurtenant.

(3) Where enclosures only are provided, then—

- (a) the fences of such enclosures shall be movable; and
- (b) the fences shall be moved and re-erected to enclose a new site whenever—
  - (i) the ground within a site is becoming offensive; or
  - (iii) the occupier is directed to do so by an Environmental Health Officer.

(4) Where sheds are provided, then—

- (a) the floor of the shed shall comply with subsection 2 (a);
- (b) all buildings and yards shall be maintained in a structurally sound and clean condition free of infestation with flies and other vectors of disease.
- (c) drainage and treatment of effluent waste shall be carried out and maintained so as to prevent a nuisance.

**Slaughtering**

215. The occupier of any piggery shall not permit any slaughtering of animals on the premises.

**Feed**

216. The occupier of any piggery shall—

- (a) not receive, or allow to be received on such premises, any carcase or part of a carcase of a diseased animal;
- (b) not feed the pigs upon the flesh or offal of diseased animals;
- (c) not receive or suffer or permit to be received on the premises, putrid matter for any purpose; and



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GOVERNMENT GAZETTE, WA

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- (d) not receive or suffer or permit to be received on the premises, any kitchen, slaughter-house or butcher's wastes or other putrescible pig feed.

**Fencing**

217. Every piggery occupier shall securely fence all the enclosures.

**Water Supply**

218. Every piggery occupier shall provide a sufficient and constant supply of clean water, which shall be properly protected against pollution and always available for cleansing purposes.

**Feeding Troughs**

219. (1) Every such occupier shall—

- (a) where sties and enclosures are provided under the provisions of sub-section 214(2), provide feeding troughs in every sty, situated near to the drainage gutter or positioned to be accessible to the pigs in two or more sties or enclosures;
- (b) where enclosures are provided under the provisions of sub section 214(3), provide feeding troughs in every such enclosure;
- (c) cause all feeding troughs, other than those provided in connection with movable enclosures, to be fixed upon a cement floor extending 1.2 metres in all directions from such trough, and designed to permit ready drainage; and
- (d) not permit pigs to be fed other than at the feeding troughs provided in accordance with this section;

(2) Notwithstanding the provisions of subsection 1, where pigs are kept continually confined in fully enclosed pens, floor feeding with pellets or dry meal shall be permitted, in which case feeding troughs are not required to be provided.

**PART 10—OFFENCES AND PENALTIES****Offences and Penalties**

220. (1) A person who contravenes a provision of these local laws commits an offence.

(2) A person who commits an offence under sub-section (1) is liable to—

- (a) a penalty which is not more than \$1,000 and not less than—
  - (i) in the case of a first such offence, \$100;
  - (ii) in the case of a second such offence, \$200; and
  - (iii) in the case of a third or subsequent such offence, \$500; and
- (b) if the offence is a continuing offence, a daily penalty which is not more than \$100 and not less than \$50.

(Section 132)

**Schedule 1***Shire of Chittering*

Health Act 1911

**APPLICATION FOR REGISTRATION OF A LODGING HOUSE**

To: Chief Executive Officer  
Shire of Chittering

I/We.....  
(Full name of Applicant/s)

of.....

.....  
(Residential Address of Applicant/s)

apply for the registration of premises situated (or to be situated) at.....

as a lodging house to be classified as—

- a lodging house;
- a short term hostel;
- serviced apartments;
- a recreational campsite; or
- other, (specify).

and for my name to be entered in the Register as the keeper of the lodging house.

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GOVERNMENT GAZETTE, WA

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**DESCRIPTION OF LODGING HOUSE**

Number of storeys.....

**Rooms for private use**

	Number	Area
Laundries/toilets/bathrooms	.....	.....
Bedrooms	.....	.....
Dining Rooms	.....	.....
Kitchens	.....	.....
Sitting Rooms	.....	.....
Other (Specify)	.....	.....

**Rooms for lodgers**

	Number	Area
Bedrooms	.....	.....
Dining Rooms	.....	.....
Kitchens	.....	.....
Sitting Rooms	.....	.....
Other (Specify)	.....	.....

**Sanitary Conveniences for male lodgers**

Toilets	.....
Urinals	.....
Baths	.....
Showers	.....
Wash hand basins	.....

**Sanitary Conveniences for female lodgers**

Toilets	.....
Baths	.....
Showers	.....
Wash hand basins	.....

**Laundry Facilities**

Coppers	.....
Washtroughs	.....
Washing machines	.....
Drying cabinets or clothes lines	.....

**Additional Details**

(a) Lodgers' meals will be provided by the manager/keeper/lodgers.

(b) The keeper will/will not reside continuously on the premises.

(c) Name and occupation of proposed manager if keeper resides elsewhere—

.....

(d) There will be.....family members residing on the premises with the keeper/manager.

Application fee of \$.....is attached.

.....  
(Signature of Applicant/s)

.....  
(Date)

(Section 133)

**Schedule 2***Shire of Chittering*

Health Act 1911

**CERTIFICATE OF REGISTRATION OF A LODGING HOUSE**

THIS is to certify that the premises situated at

.....  
.....are registered as a

29 June 1998]

GOVERNMENT GAZETTE, WA

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Lodging House and classified as—

- a lodging house
- a short term hostel
- serviced apartments
- a recreational campsite
- other (specify)

until 30 June 19 ....., on the following conditions—

1. that ....., whose name is entered on the register of keepers of the Shire of Chittering, continues to be the keeper of the lodging house;
2. that ....., appointed by the keeper to be the manager of the lodging house, continues to be the manager of the lodging house;
3. that the Certificate of Registration is not sooner cancelled or revoked;
4. that the maximum number of rooms to be used as sleeping apartments for lodgers is— .....; and
5. that the maximum number of lodgers accommodated on the premises shall not exceed .....

This Certificate of Registration is issued subject to the Health Act and Health Local Laws of the Shire of Chittering and is not transferable.

Dated ..... 19.....

.....  
Principal Environmental Health Officer  
Shire of Chittering

Fee received: \$.....

(Section 135)

**Schedule 3***Shire of Chittering*

Health Act 1911

**NOTICE OF CHANGE OF OWNER OF A LODGING HOUSE**

To: Chief Executive Officer  
Shire of Chittering

I/We.....  
(Full name of Applicant/s)

of.....  
(Residential Address of Applicant/s)

am/are the new owner/s of premises situated at .....

which are registered in the name of.....

for the carrying on of the lodging house business.

.....  
(Signature of Applicant/s)

.....  
(Date)

(Section 154)

**Schedule 4***Shire of Chittering*

Health Act 1911

(Section 157)

**REGISTER OF LODGERS**

Location of Lodging House:.....

Date of Arrival	Name Departure	Previous Address	Signature	Room No.	Date of

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GOVERNMENT GAZETTE, WA

[29 June 1998]

(Section 155)

**Schedule 5**  
*Shire of Chittering*  
 Health Act 1911  
**LIST OF LODGERS**

The Chief Executive Officer

Shire of Chittering

The following is the name of every person who resided in the lodging house at

.....

.....

on the ..... day of ..... 19.....

(Signed) .....

(Keeper)

Date:.....

(Section 156)

**Schedule 6**  
*Shire of Chittering*  
 Health Act 1911  
**CERTIFICATE OF SLEEPING ACCOMMODATION**

To:.....

(Name of Keeper)

of.....

(Address of Keeper)

For the registered lodging house situated at:.....

.....

This room, No. ...., can be used as a sleeping apartment (for sleeping purposes only) to accommodate not more than ..... persons at any one time.

Date:.....

Principal Environmental Health Officer

(Section 156)

**Schedule 7**  
*Shire of Chittering*  
 Health Act 1911  
**CERTIFICATE OF SLEEPING ACCOMMODATION FOR A LODGING HOUSE  
 WITH MORE THAN 20 SLEEPING APARTMENTS**

To:.....

(Name of Keeper)

of.....

(Address of Keeper)

for the registered lodging house situated at:.....

.....

The rooms listed below are not to be occupied by more than the number of lodgers or residents indicated below.

**ROOM NUMBER:****MAXIMUM OCCUPANCY:**

Date:.....

Principal Environmental Health Officer

29 June 1998]

GOVERNMENT GAZETTE, WA

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(Section 33)

**Schedule 8***Shire of Chittering*

Health Act 1911

**APPLICATION FOR LICENCE OF A MORGUE**

To: Chief Executive Officer  
Shire of Chittering

I.....  
(full name in block letters)

of.....  
(full residential address)

apply to licence the premises listed below as a Morgue

Address of premises:

.....  
.....

Name of premises:

.....

Dated this..... day of ..... 19.....

.....  
(Signature of Applicant)

(Section 33)

**Schedule 9***Shire of Chittering*

Health Act 1911

**CERTIFICATE OF LICENCE OF A MORGUE**

This is to certify the following premises is licensed as a Morgue from the

.....day of.....19..... until 30th day of June 19.....

Address of premises:

.....  
.....

Name of premises:

.....

Dated this..... day of ..... 19.....

.....  
Principal Environmental Health Officer  
Shire of Chittering

(Section 165)

**Schedule 10***Shire of Chittering*

Health Act 1911

**APPLICATION FOR CONSENT TO ESTABLISH  
AN OFFENSIVE TRADE**

To: Chief Executive Officer  
Shire of Chittering

I/We,.....  
(Full Name of Applicant/s)

of.....

.....  
(Residential Address of Applicant/s)

apply for consent to establish an offensive trade being

.....  
(Description of Offensive Trade)

in or upon

.....  
(Location of the House or Premises)

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GOVERNMENT GAZETTE, WA

[29 June 1998]

Notice of my/our intention to make this application was  
advertised in.....

on.....  
(Date of Advertisement)

Plans and specifications of the buildings proposed to be used or erected in connection with the proposed offensive trade are attached.

.....  
(Signature of Applicants/s)

.....  
(Date)

.....  
(Section 167)

### **Schedule 11**

*Shire of Chittering*

Health Act 1911

### **APPLICATION FOR REGISTRATION OF PREMISES FOR OFFENSIVE TRADE**

To: Chief Executive Officer  
Shire of Chittering

I/We,.....  
(Full Name of Applicant/s)

of .....  
.....  
.....  
(Residential Address of Applicant/s)

apply for registration, for the year ended.....

of .....  
(Location of Premises)

being premises in or upon which there is (or is to be) carried on an offensive trade, namely

.....  
.....  
(Description of Offensive Trade)

under the business name of.....

The prescribed registration fee of \$..... is attached.

.....  
(Signature of Applicants/s)

.....  
(Date)

.....  
(Section 168)

### **Schedule 12**

*Shire of Chittering*

Health Act 1911

### **CERTIFICATE OF REGISTRATION OF PREMISES FOR OFFENSIVE TRADE**

This is to certify that the premises situated at.....  
.....of which

is the occupier, are registered for the carrying on of the  
trade of.....

Trade Name.....

This registration expires on the.....19.....

Dated this.....day of ..... 19.....

.....  
Principal Environmental Health Officer  
Shire of Chittering



29 June 1998]

GOVERNMENT GAZETTE, WA

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**Schedule 13**  
*Shire of Chittering*  
Health Act 1911  
**PRESCRIBED FEES**

Schedule	Description	Prescribed Fee
9	Registration of Lodging House	\$180.00
15	Licensing of a Morgue	\$80.00

**Schedule 14**  
*Shire of Chittering*  
Health Act 1911  
**PRESCRIBED AREAS—SECTION 112A**

No areas have yet been prescribed.

Passed at a meeting of the Council of the Shire of Chittering held on 16th April 1998.  
The Common Seal of the Shire of Chittering was hereunto affixed in the presence of—  
On this 22nd day of April 1998.

SUE METCALF, President.  
RAY HOOPER, Chief Executive Officer.

Consented to —

Dr C. F. QUADROS, Executive Director, Public Health.

Dated this 16th day of June 1998.



FORM N1

WESTERN AUSTRALIA  
TRANSFER OF LAND ACT 1893 AS AMENDED**NOTIFICATION  
UNDER SECTION 70A**

DESCRIPTION OF LAND (Note 1)

Lot 18 on Deposited Plan 405963

Lot 19 on Deposited Plan 405963

EXTENT

Whole

Whole

VOLUME

FOLIO

REGISTERED PROPRIETOR (Note 2)

Paul Andrew Bright &amp; Julie Bright of 37 Sublime Glade Carramar WA 6031

LOCAL GOVERNMENT / PUBLIC AUTHORITY (Note 3)

Shire of Chittering of 6177 Great Northern Highway Bindoon WA 6502

FACTOR AFFECTING USE OR ENJOYMENT OF LAND (Note 4)

SEE ADDITIONAL PAGE

Dated this

day of

2016

LOCAL GOVERNMENT/PUBLIC AUTHORITY ATTESTATION (Note 5)

SEE ADDITIONAL PAGE

REGISTERED PROPRIETOR/S SIGN HERE (Note 6)

SEE ADDITIONAL PAGE

**INSTRUCTIONS**

1. If insufficient space in any section, Additional Sheet Form B1, should be used with appropriate headings. The boxed sections should only contain the words "see page...."
2. Additional Sheets shall be numbered consecutively and bound to this document by staples along the left margin prior to execution by the parties.
3. No alteration should be made by erasure. The words rejected should be scored through and those substituted typed or written above them, the alteration being initialled by the persons signing this document and their witnesses.

**NOTES****1. DESCRIPTION OF LAND**

Lot and Diagram/Plan/Strata/Survey-Strata Plan number or Location name and number to be stated.

Extent-Whole, part or balance of the land comprised in the Certificate of Title to be stated.

The Volume and Folio or Crown Lease number to be stated.

**2. REGISTERED PROPRIETOR**

State full name and address of the Registered Proprietors as shown on the Certificate of Title and the address / addresses to which future Notices can be sent.

**3. LOCAL GOVERNMENT / PUBLIC AUTHORITY**

State the name of the Local Government or Public Authority preparing and lodging this notification.

**4. FACTOR AFFECTING THE USE AND ENJOYMENT OF LAND**

Describe the factor affecting the use or enjoyment of land.

**5. ATTESTATION OF LOCAL GOVERNMENT / PUBLIC AUTHORITY**

To be attested in the manner prescribed by the Local Government Act or as prescribed by the Act constituting the Public Authority.

**6. REGISTERED PROPRIETOR'S EXECUTION**

A separate attestation is required for every person signing this document. Each signature should be separately witnessed by an Adult Person. The address and occupation of the witness must be stated.

EXAMINED

OFFICE USE ONLY

**NOTIFICATION**

LODGED BY

ADDRESS

PHONE No.

FAX No.

REFERENCE No. 161508

ISSUING BOX No.

PREPARED BY KOTT GUNNING

ADDRESS 140 St Georges Terrace  
PERTH WA 6000

PHONE No. (08) 9321 3755 FAX No. (08) 9321 3465

INSTRUCT IF ANY DOCUMENTS ARE TO ISSUE TO  
OTHER THAN LODGING PARTY

TITLES, LEASES, DECLARATIONS ETC LODGED HERewith

- |    |       |                |
|----|-------|----------------|
| 1. | _____ | Received Items |
| 2. | _____ | Nos.           |
| 3. | _____ |                |
| 4. | _____ |                |
| 5. | _____ | Receiving      |
| 6. | _____ | Clerk          |

Registered pursuant to the provisions of the TRANSFER OF LAND ACT 1893 as amended on the day and time shown above and particulars entered in the Register.

FORM B1 - FORM APPROVAL NUMBER B1712

Page No. 1 of 2 Pages.

WESTERN AUSTRALIA

TRANSFER OF LAND ACT 1893 AS AMENDED.

**ADDITIONAL PAGE TO NOTIFICATION**

Dated

**FACTOR AFFECTING USE OR ENJOYMENT OF LAND:**

1. The lot/s are subject to an environmental management plan; and
2. A reticulated sewerage service is not available to the lot/s.

Executed by LOCAL GOVERNMENT/PUBLIC AUTHORITY

The **COMMON SEAL** of the )  
**SHIRE OF CHITTERING** was hereunto )  
affixed by authority of Council : )

.....  
Authorised Officer:

.....  
Chief Executive Officer:

Full name:

Full name:

Executed by REGISTERED PROPRIETORS

Signed by: .. [REDACTED] .....  
PAUL ANDREW BRIGHT

Signed by: .. [REDACTED] .....  
JULIE BRIGHT

In the presence of [REDACTED]

In the presence of [REDACTED]

Witness (sign):

Witness (sign):

Full Name (print): DANIELE YVONNE COX

Full Name (print): DANIELE YVONNE COX

Address (print): 29 SUBURB GLEN

Address (print): 29 SUBURB GLEN

Occupation (print): CARRAN 6031  
CUSTOMER MANAGER

Occupation (print): CARRAN 6031  
CUSTOMER MANAGER



**N**  
*Subject to Survey*

**9601**

**(133.09)**

**59±**

**74±**

**225.393**

**861**

**73**

**100**

**Future Road (refer approved ODP)**

**157±**

**(467.07)**

**1.0ha**

**161**

**261**

**361**

**461**

**561**

**661**

**761**

**861**

**961**

**124.755**

**36.896**

**33a**

**59.375**

**49.416**

**Drainage Easement**

**Mini Pillar**

**Truncation for future road**

**101**

**141**

**57.703**

**52.703**

**33a**

**14.633**

**34.796**

**34.21**

**5**

**30.085**

**31.162**

**33a**

**40.605**

**60.00'**

**Rise**

**Guernsey**

**31.21**

**31**

**31.05**

**45**

**61.65**

**Proposed Subdivision of Lot 72 Guernsey Rise  
Lower Chittering**

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