

**CAP MEETING – 13 SEPTEMBER 2023**  
**ITEM 8.2**

<b>DEVELOPMENT NO.:</b>	23008597
<b>APPLICANT:</b>	Adam Johnson
<b>ADDRESS:</b>	11 ONKAPARINGA VALLEY ROAD BALHANNAH SA 5242 CT 6122/499
<b>NATURE OF DEVELOPMENT:</b>	Carport addition to each tourist accommodation unit and variation to development authorisation 19/1064/473 to remove Condition 5 and connect tourist accommodation units to an on-site wastewater system with additional changes to the design & orientation of the tourist accommodation units
<b>ZONING INFORMATION:</b>	<p><b>Zones:</b></p> <ul style="list-style-type: none"> <li>• Productive Rural Landscape</li> </ul> <p><b>Overlays:</b></p> <ul style="list-style-type: none"> <li>• Environment and Food Production Area</li> <li>• Hazards (Flooding)</li> <li>• Hazards (Bushfire - High Risk)</li> <li>• Hazards (Flooding - General)</li> <li>• Key Railway Crossings</li> <li>• Limited Land Division</li> <li>• Mount Lofty Ranges Water Supply Catchment (Area 2)</li> <li>• Native Vegetation</li> <li>• Prescribed Water Resources Area</li> <li>• Traffic Generating Development</li> <li>• Urban Transport Routes</li> <li>• Water Resources</li> </ul>
<b>LODGEMENT DATE:</b>	29 March 2023
<b>RELEVANT AUTHORITY:</b>	Assessment Panel at Adelaide Hills Council
<b>PLANNING &amp; DESIGN CODE VERSION:</b>	2023.4
<b>CATEGORY OF DEVELOPMENT:</b>	Code Assessed - Performance Assessed
<b>NOTIFICATION:</b>	No
<b>RECOMMENDING OFFICER:</b>	Marie Molinaro Statutory Planner
<b>REFERRALS STATUTORY:</b>	Environment Protection Authority (EPA) Country Fire Service (CFS)
<b>REFERRALS NON-STATUTORY:</b>	Council Environmental Health

**CONTENTS:**

<b>ATTACHMENT 1:</b>	<b>Application Documents</b>	<b>ATTACHMENT 5:</b>	<b>Referral Responses</b>
<b>ATTACHMENT 2:</b>	<b>Agenda &amp; Minutes from CAP Meeting 21 August 2021</b>	<b>ATTACHMENT 6:</b>	<b>Relevant P&amp;D Code Policies</b>
<b>ATTACHMENT 3:</b>	<b>Subject Land Map</b>		
<b>ATTACHMENT 4:</b>	<b>Zoning Map</b>		

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#### DETAILED DESCRIPTION OF PROPOSAL:

The proposal is a variation application which seeks to remove condition five (5) from development authorisation 19/1064/473. Development authorisation 19/1064/473 is for the addition of two (2) self-contained tourist accommodation units on the subject land.

Condition five (5) is as follows:

*Prior to the issue of a certificate of occupancy, the two accommodation villas must be connected to SA Water network in accordance with the wastewater management system and sewer connection plans prepared by Land Energy Pty Ltd referenced in condition 1.*

Condition five (5) is proposed to be removed as the owner has been unable to secure sewer connection for the tourist accommodation unit. This is due to SA Water advice that there is insufficient capacity in the area to support the proposed connection. Instead, the owner now intends to manage waste on-site. A separate wastewater application has been approved by the Council Environmental Health Unit – ref. 23/W083/473.

Wastewater approval 23/W083/473 is for an aerobic wastewater treatment system. The system will service the tourist accommodation units and the dwelling on the land. The existing wastewater system servicing the dwelling will be decommissioned.

No other conditions of development authorisation 19/1064/473 are to change. However, included with the variation is the submission of amended architectural plans which are for minor design changes to the tourist accommodation units. The changes are summarised below:

- Both buildings re-orientated for improved views across the subject land.
- Internal driveway modification, but still consistent with the CFS access condition eight (8).
- Floor plan layout change, but still the same features and approximate floor area.

In addition, a single width carport is being added to the side of each unit.

The application documents are included as **Attachment 1 – Application Documents**.

#### BACKGROUND:

CAP resolved to seek the concurrence of the State Commission Assessment Panel (SCAP) to grant Development Plan Consent to application 19/1064/473 on 11 August 2021. Development Plan Consent was subsequently granted on 13 October 2021 and remained valid until 13 October 2022.

At the request of the applicant an extension of time until 13 April 2024 to gain Development Approval has been granted.

A copy of the agenda and minutes from the 11 August 2021 CAP meeting are included as **Attachment 2 – Agenda & Minutes from CAP Meeting 11 August 2021**.

As per the Council delegations in Instrument C, as CAP was the relevant authority for development application 19/1064/473 the variation application must also be determined by CAP as it is revoking a condition.

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**SUBJECT LAND & LOCALITY:**

**Site Description:**

**Location reference:** 11 ONKAPARINGA VALLEY RD BALHANNAH SA 5242

**Title ref.:** CT 6122/499      **Plan Parcel:** D92095 AL80      **Council:** ADELAIDE HILLS COUNCIL

The subject land is identified on **Attachment 3 – Subject Land Map**. The zoning is shown on the map in **Attachment 3 – Zoning Map**.

**CONSENT TYPE REQUIRED:**

Planning Consent

**CATEGORY OF DEVELOPMENT:**

- **PER ELEMENT:**
  - Other - Commercial/Industrial - Variation to development authorisation 19/1064/473 - to remove condition 5 and connect tourist accommodation units to an on-site wastewater system & changes to the design and orientation of the tourist accommodation units.
  - Code Assessed - Performance Assessed
  - Carport
  - Code Assessed – Performance Assessed
- **OVERALL APPLICATION CATEGORY:**
  - Code Assessed - Performance Assessed
- **REASON**
  - Variation applications which are not development in their own right default to being assessed under the Performance Assessed pathway.

The carport is excluded from public notification per Table 5 procedural matters of the Productive Rural Landscape Zone.

**PUBLIC NOTIFICATION**

Public notification was not required.

**AGENCY REFERRALS**

- Environment Protection Authority (EPA)
  - No objections to the proposal, subject to one (1) directed condition and three (3) advisory notes.
- Country Fire Service
  - Advised they have no objections to the amendments and their conditions on the original consent remain.

The EPA & CFS response is included as **Attachment 5 – Referral Responses**.

**INTERNAL REFERRALS**

- Council Environmental Health
  - Approved the wastewater application – 23/W083/473. The wastewater approval includes the de-commissioning of the existing waste control system servicing the dwelling on the land, and recommended condition three (3) requires the de-commissioning to occur prior to occupation of the tourist accommodation units.

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#### PLANNING ASSESSMENT

##### *Desired Outcomes*

*Desired outcomes are policies designed to aid the interpretation of performance outcomes by setting a general policy agenda for a zone, subzone, overlay or general development policies module. Where a relevant authority is uncertain as to whether or how a performance outcome applies to a development, the desired outcome(s) may inform its consideration of the relevance and application of a performance outcome, or assist in assessing the merits of the development against the applicable performance outcomes collectively.*

##### *Performance Outcomes*

*Performance outcomes are policies designed to facilitate assessment according to specified factors, including land use, site dimensions and land division, built form, character and hazard risk minimisation.*

##### *Designated Performance Features*

*In order to assist a relevant authority to interpret the performance outcomes, in some cases the policy includes a standard outcome which will generally meet the corresponding performance outcome (a designated performance feature or DPF). A DPF provides a guide to a relevant authority as to what is generally considered to satisfy the corresponding performance outcome but does not need to necessarily be satisfied to meet the performance outcome, and does not derogate from the discretion to determine that the outcome is met in another way, or from the need to assess development on its merits against all relevant policies.*

The application has been assessed against the relevant provisions of the Planning & Design Code, which are contained in **Attachment 6 – Relevant P&D Code Policies**.

#### Productive Rural Landscape Zone

Desired Outcomes	
DO 1	A diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.
DO 2	A zone that promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.
DO 3	Create local conditions that support new and continuing investment while seeking to promote co-existence with adjoining activities and mitigate land use conflicts.
Performance Outcomes & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
Land Use and Intensity PO 1.1 & DTS/DPF 1.1	
Shops, Tourism and Function Centres PO 6.3 & DTS/DPF 6.3 & PO 6.4 & DTS/DPF 6.4	

The tourist accommodation use has been approved. This variation proposal does not change the use.

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#### Overlays

##### Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay

Desired Outcomes	
DO 1	Safeguard Greater Adelaide’s public water supply by ensuring development has a neutral or beneficial effect on the quality of water harvested from secondary reservoirs or diversion weir catchments from the Mount Lofty Ranges.
Performance Outcomes & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
Water Quality PO1.1	
Wastewater PO 2.1 & DTS/DPF 2.1, PO 2.4 & DTS/DPF 2.4 & PO 2.5 & DTS/DPF 2.5	

The EPA reviewed the proposal for water quality impacts. They were satisfied that the proposal for on-site wastewater management will result in a neutral impact on water quality. This is consistent with Desired Outcome 1 and Performance Outcome 1.1.

Separate wastewater approval has been granted for the on-site waste control system, which is consistent with Designated Performance Features 2.1 & 2.4. The design of the on-site waste control system complies with all the criteria of Designated Performance Feature 2.5 for on-site waste systems with regard to watercourse setbacks.

#### General Development Policies

##### Design

Desired Outcomes	
DO 1	Development is: (a) contextual – by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributes to the character of the immediate area (b) durable – fit for purpose, adaptable and long lasting (c) inclusive – by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access, and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors (d) sustainable – by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.
Performance Outcomes & Deemed to Satisfy (DTS)/Designated Performance Feature (DPF) criteria	
On-site Waste Treatment Systems PO 6.1 & DTS/DPF 6.1	

The on-site wastewater system does not encroach upon any driveway, parking or private open space areas of the tourist accommodation units or the existing dwelling on the land as desired by Performance Outcome 6.1.

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The design changes are considered to be minor and do not change the nature of the proposal. The number of bedrooms and wet areas remain the same. Guest experience is improved by the inclusion of an attached carport to each unit and the re-orientation of the units for improved views across the subject land.

#### **CONCLUSION**

Some minor design and orientation changes are proposed as part of the variation but these do not change the nature of the proposal and are considered to promote an improved guest outcome.

This variation application is seeking consent to connect two approved tourist accommodation units to an on-site wastewater system. Due to technical reasons, the tourist accommodation units cannot be connected to sewer as required by condition five (5) of development authorisation 19/1064/473.

The variation application required a referral to the Environment Protection Authority (EPA) who reviewed the proposal for water quality impacts. The EPA are satisfied with the proposal, subject to a directed condition and three (3) advisory notes.

Council Environmental Health approved the wastewater application for on-site wastewater management. The wastewater approval includes the de-commissioning of the existing waste control system servicing the dwelling on the land, and recommended condition three (3) requires the de-commissioning to occur prior to occupation of the tourist accommodation units.

Recommended condition two (2) re-enforces that no other conditions from development authorisation 19/1064/473 are affected by this variation.

The carport addition is considered appropriate to the design of the tourist accommodation.

#### **RECOMMENDATION**

**It is recommended that the Council Assessment Panel resolve that:**

- 1) Pursuant to Section 107(2)(c) of the Planning, Development and Infrastructure Act 2016, and having undertaken an assessment of the application against the Planning and Design Code, the application is NOT seriously at variance with the provisions of the Planning and Design Code; and**
- 2) Development Application Number 23008597 by Adam Johnson for carport addition to each tourist accommodation unit & variation to development authorisation 19/1064/473 to remove condition 5 and connect tourist accommodation units to an on-site wastewater system with additional changes to the design & orientation of the tourist accommodation units at 11 Onkaparinga Valley Road, Balhannah is granted Planning Consent subject to the following conditions:**

#### **CONDITIONS**

##### **Planning Consent**

- 1) The development granted shall be undertaken and completed in accordance with the stamped plans and documentation, except where varied by conditions below (if any).**
- 2) Except where varied by this authorisation, all other conditions, plans and details relating to Development Authorisation 19/1064/473 continue to apply to this amended authorisation.**

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- 3) Prior to occupation of the two tourist accommodation units on the land, the existing on-site waste water system servicing the dwelling on the land shall be de-commissioned.**

#### **Conditions imposed by Environment Protection Authority under Section 122 of the Act**

- 4) Prior to occupation of the two tourist accommodation units on the land, the associated wastewater system and wastewater disposal area must be installed and made operational, as per the details contained within the revised Wastewater Engineers Report prepared by Land Energy Pty Ltd, dated 28 June 2023.**

#### **ADVISORY NOTES**

##### **Planning Consent**

- 1) No work can commence on this development unless a Development Approval has been obtained. If one or more consents have been granted on this Decision Notification Form, you must not start any site works or building work or change of use of the land until you have received notification that Development Approval has been granted.**
- 2) Appeal rights – General rights of review and appeal exist in relation to any assessment, request, direction or act of a relevant authority in relation to the determination of this application, including conditions.**
- 3) Building Consent must be obtained prior to expiration of the Planning Consent, which is 13 April 2024.**
- 4) Where an approved development has been substantially commenced within 2 years from the operative date of approval, the approval will then lapse 3 years from the operative date of the approval (unless the development has been substantially or fully completed within those 3 years, in which case the approval will not lapse).**

##### **Advisory Notes imposed by Environment Protection Authority under Section 122 of the Act**

- 5) The applicant is advised that during the proposed earthworks, measures to manage soil erosion and the drainage of stormwater should be implemented to ensure that soil and sediment do not pass beyond the bounds of the subject site.**
- 6) The applicant/owner/operator are reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that activities on the site and associated with the site (including during construction) do not pollute the environment in a way which causes or may cause environmental harm.**
- 7) More information about the Environment Protection Authority and the Environment Protection Act and policies can be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au)**

#### **OFFICER MAKING RECOMMENDATION**

**Name:** Marie Molinaro

**Title:** Statutory Planner

PROJECT

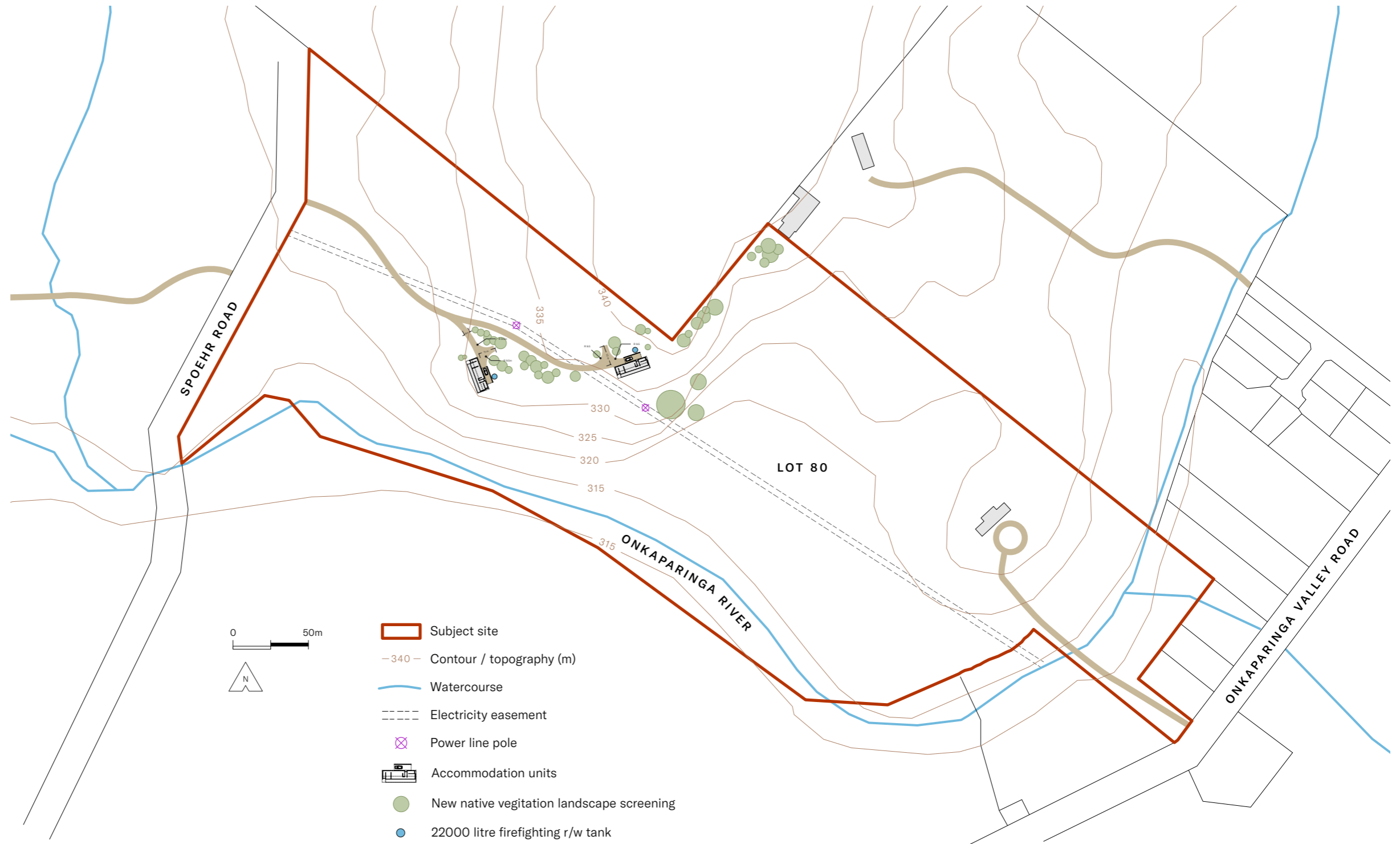
# OVE0001 OVE Balhannah Villas

DRAWING

## OVE0001/C Site plan

DRAWING SIZE: A2

DRAWING SCALE: N/A



ADAM JOHNSON DESIGN\_

CONTACT: ADAM JOHNSON  
EMAIL: AJ@ADAMJOHNSONDESIGN.COM.AU  
MOB: 0403 535 207

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO COMMENCING WORK AND ANY DISCREPANCY SHALL BE REPORTED TO THE DESIGNER IMMEDIATELY. FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DIMENSIONS



PROJECT

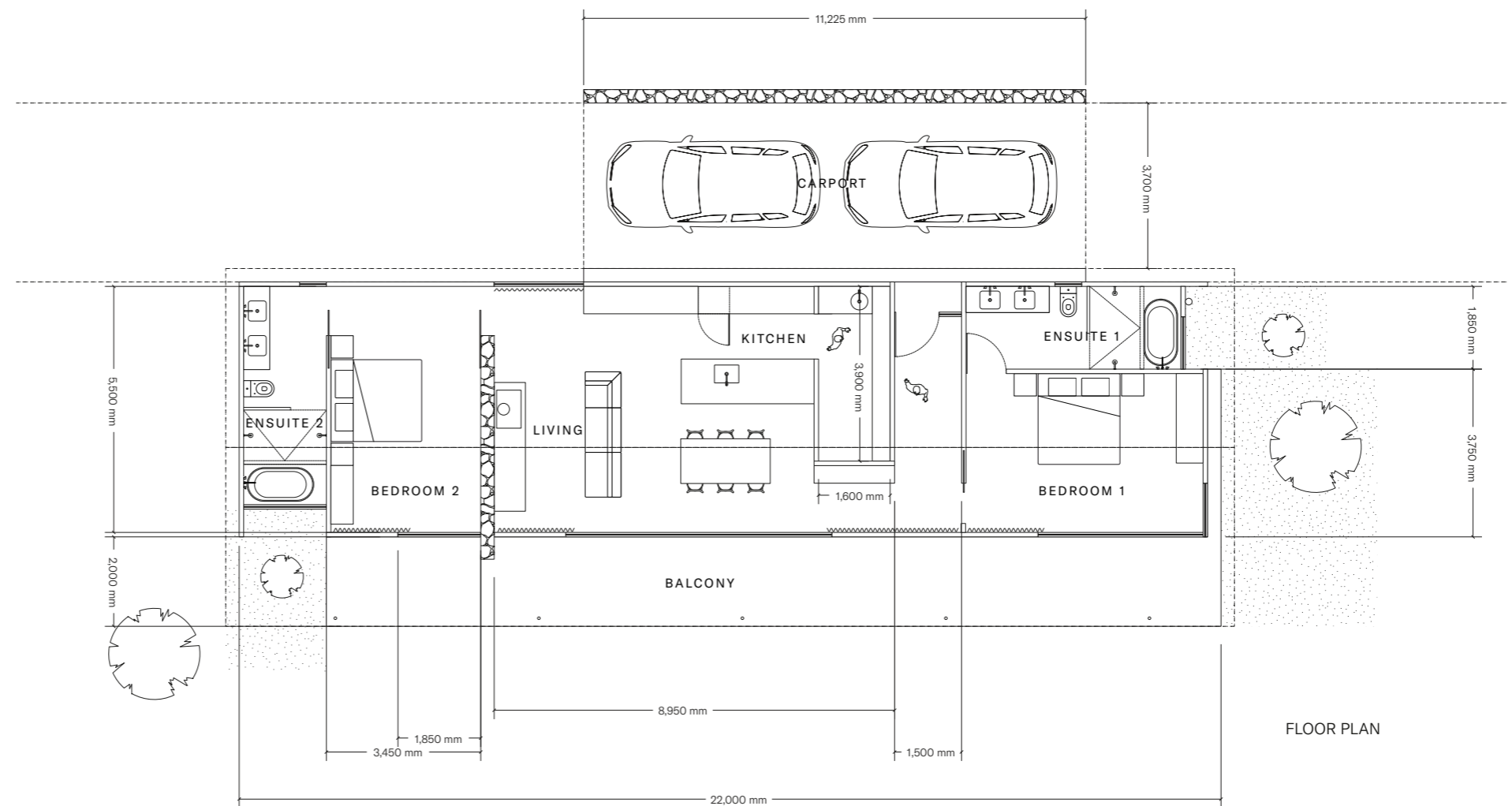
# OVE0001 OVE Balhannah Villas

DRAWING

## OVE0001/B Concept plan

DRAWING SIZE: A2

DRAWING SCALE: N/A



ADAM JOHNSON DESIGN\_

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PROJECT

**OVE0001 OVE  
Balhannah Villas**

DRAWING

**OVE0001/A  
3D renders**

DRAWING SIZE: A2

DRAWING SCALE: N/A



ADAM JOHNSON DESIGN\_

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PREFERENCE OVER SCALED DIMENSIONS

Hi Marie, see below email from SA Water for reference.

It was discussed with our Environmental Engineer (Phillip Baker @ Land Energy Pty Ltd) to submit a development application to AHC for the treatment of all wastewater generated from the existing dwelling **and** the proposed development in **one** wastewater treatment system, with on-site irrigation re-use of the secondary treated wastewater in a dedicated area, planted to appropriate native vegetation species.

-----  
Hello,

Thank you for your patience while we assessed your application for a new sewer connection.

Based on our investigation, our network does not have sufficient capacity to support your proposed development.

The existing network already has capacity constraints, and the risk of overflow during wet weather event is 'Extreme' The proposed connection from the development will further increase the risk of overflows.

Unfortunately, at this point in time a new sewer connection to your property cannot be supported.

Should you require any further information please do not hesitate to reach out.

Thank you,  
Georgina Rohacek  
Development Services Officer

Development Services SA Water  
E [cc@sawater.com.au](mailto:cc@sawater.com.au)  
T 1300 650 951  
[www.sawater.com.au](http://www.sawater.com.au)  
250 Victoria Square, Adelaide SA 5000  
GPO Box 1751, Adelaide SA 5001

Planned SA Water Construction will be placed on hold starting Thurs 22 December 2022 resuming Mon 9 January 2023  
Development Services teams will be out of office from COB 23 December 2022 resuming Tuesday 3 January 2023

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:)

Adam Johnson  
Creative Director



**Adelaide Hills**  
COUNCIL

**WASTEWATER WORKS APPROVAL TO INSTALL AN AEROBIC WASTEWATER TREATMENT SYSTEM**

<b>DATE:</b> 25 July 2023	<b>ASSESS No.:</b> 6131	<b>APPROVAL No.:</b> 23/W083/473
<b>APPLICANT DETAILS</b>	Adam Johnson - 9 Gould Lane, STIRLING SA 5152	
<b>OWNER(S) DETAILS</b>	Sue Bastian - 11 Onkaparinga Valley Road, BALHANNAH SA 5242	
<b>LOCATION</b>	11 Onkaparinga Valley Road, Balhannah SA 5242	

<b>SEPTIC TANK</b>		
Minimum Effective Capacity	<input type="text" value="5000"/>	LITRES
<b>SECONDARY TREATMENT</b>	<b>TYPE</b>	<b>MODEL</b>
Aerobic Waste Water Treatment System	FujiClean ACE 3000	
<b>EFFLUENT DISPOSAL SYSTEM</b>		
<input type="text" value="1423m2"/>		
<b>NOTE:-</b> Surface irrigation disposal area must be suitably landscaped and established. <b>It must be situated at least 50 Metres from any Creek, Watercourse and Dam, and as far as possible from the Bore.</b>		

Persons undertaking the installation of the system are required to give the Council's Environmental Health Officer one (1) business day's notice when calling for an inspection –Requests for an inspection must be made before 3pm on the preceding business day. Penalties apply for non-compliance.

**MANDATORY INSPECTIONS**

1. Underfloor plumbing (under water test)
2. Drain, Septic tank and Effluent Disposal System.
3. Final inspection of completed system, backfilled with all inspection points, plumbing fixtures and irrigation system in place.

**Approval of the wastewater system does not infer development approval and work should not proceed until all approvals have been received**

**BOOK AN INSPECTION ONLINE:**

[https://adelaidehillscouncil.formstack.com/forms/notification\\_of\\_inspection](https://adelaidehillscouncil.formstack.com/forms/notification_of_inspection)

Please be advised that, pursuant to the South Australian Public Health (Wastewater) Regulations 2013 (the Regulations) approval is hereby granted for the installation of the above wastewater works (or part) and associated plumbing and drainage works subject to strict compliance with all of the following conditions.

**Please note that penalties can apply for non-compliance with approval conditions.**

**[Approval of the installation of an Aerobic Wastewater Treatment System is subject to the following conditions:](#)**

#### **APPROVAL CONDITIONS**

1. The approved wastewater system incorporates:
  - 1.1. Sanitary plumbing and drainage in compliance with AS/NZS 3500.
  - 1.2. The existing wastewater system must be decommissioned by a licenced plumber upon the installation of the system approved in this approval.
  - 1.3. A FujiClean ACE 3000 septic tank.
  - 1.4. Ri Industries approved for 20EP.
  - 1.5. 1423 m<sup>2</sup> irrigation area with associated pipework and fittings as specified by the design engineer in the report dated **28<sup>th</sup> June 2023**.
  - 1.6. Audible / visible alarm system.
2. The wastewater system to be installed, commissioned, operated and maintained in accordance with:
  - 2.1 The plans and specifications submitted including any amendments made/required with this approval.
  - 2.2 Manufacturers, installers and equipment suppliers' instructions and recommendations.
  - 2.3 The design engineers' report dated 28<sup>th</sup> June 2023.
  - 2.4 The servicing requirements of the manufacturer including the keeping of records of all maintenance and servicing of the system.
  - 2.5 Copy of service reports to be forwarded to the Council officers upon commissioning of system and each service thereafter.
  - 2.6 The Waste Control system shall be operated and maintained in accordance with the requirements of the Council.
  - 2.7 The relevant South Australian Product Approval(s).
  - 2.8 Australia/New Zealand Standard for Sanitary Plumbing and Drainage (AS/NZS 3500).
  - 2.9 The Onsite Wastewater Systems Code.
  - 2.10 All other relevant standards and codes.
  - 2.11 Conditions of this approval.
3. In accordance with the Regulations, wastewater works (or part) must be carried out (including the effluent disposal area) by a suitably qualified person as defined by the Wastewater Regulation 2013. Additionally, the required signed Certificates of Compliance and "as constructed" drawings must be submitted to the relevant authority and the owner or occupier of the land on which the work was undertaken within 28 days of completion of each stage.
4. In regards to inspection, the relevant authority reserves the right to inspect during construction, or upon completion, or not to inspect the installation. The installer is required to notify the relevant authority at least one business day before the works commence. *See Mandatory Notification and Inspection Stages.*

#### **BOOK AN INSPECTION ONLINE:**

**[https://adelaidehillscouncil.formstack.com/forms/notification\\_of\\_inspection](https://adelaidehillscouncil.formstack.com/forms/notification_of_inspection)**

5. A durable notice is to be permanently located in a prominent position (such as a power box) on the property showing:
  - 5.1 Type of system installed
  - 5.2 Date of system installed
  - 5.3 Servicing / desludging frequency
  - 5.4 Prohibited discharges

## 5.5 Relevant Authority / Manufacturer details

6. The operator of the wastewater system must ensure that the lids and access openings are raised to surface level and sealed to prevent the entry of storm water or the escape of effluent or sewer gases and are fitted so as to be childproof.
7. The operator of a wastewater system must ensure that the system is operated, maintained and serviced in accordance with:
  - 7.1 The conditions of this approval.
  - 7.2 The Prescribed Codes to the extent which they are applicable.
8. The operator of a wastewater treatment system must ensure that wastewater/ recycled water from the system is reused or disposed of in accordance with:
  - 8.1 The conditions of approval.
  - 8.2 The Prescribed Codes to the extent which they are applicable. This includes the following requirements:
    - 8.2.1. The wastewater system (including the irrigation system) is not to be altered without approval from the relevant authority.
    - 8.2.2. Recycled water must not be allowed to pool or run off the approved irrigation area.
    - 8.2.3. Other water sources are not to be connected to the recycled water system.
9. Where installed, any pumps and rising mains required must be suitable for their intended loads and operating environment.
10. This approval will expire if the works are not commenced within 24 months, or are commenced but not substantially completed within 36 months after the date of approval.
11. Pursuant to the Regulations, the relevant authority may, on its own initiative, by written notice to the operator of a wastewater system to which a wastewater works approval applies, vary or revoke a condition of the approval or impose a further condition, but in that case, the variation, revocation or imposition may not take effect until at least 6 months after the giving of the notice unless:
  - 11.1. The operator consents or-
  - 11.2. The relevant authority states in the notice that, in its opinion, the variation revocation or imposition is necessary in order to prevent or mitigate significant harm to public or environmental health or the risk of such harm.

***Approval of the wastewater system does not infer development approval and work should not proceed until all approvals have been received***

If you have any queries please do not hesitate to contact the Adelaide Hills Council on the details below.

Contact Officer: Anastasia Paslavski

Contact Telephone No: 8408 0400

Email

: [mail@ahc.sa.gov.au](mailto:mail@ahc.sa.gov.au)

Signed:



25 July 2023

Anastasia Paslavski  
Authorized Officer

South Australian Public Health Act, 2011

- Note 1:** The approval does not abrogate responsibilities under other Acts or Regulations to obtain the necessary approvals, permits or licences from other agencies.
- Note 2:** Sludge from the system is to be taken away by an EPA licensed operator to an approved site in accordance with the SA Biosolids Guidelines.
- Note 3:** Any alterations/upgrades/modifications to this system will be subject to separate application(s) and approval from the relevant authority.
- Note 4:** Any variation to the works as approved must not be undertaken until that variation has received Council approval

**BOOK AN INSPECTION ONLINE:**

[https://adelaidehillscouncil.formstack.com/forms/notification\\_of\\_inspection](https://adelaidehillscouncil.formstack.com/forms/notification_of_inspection)



**LAND  
ENERGY**

PTY LTD  
Environmental  
Science and  
Engineering  
Post Office Box 651  
McLaren0 Vale 5171  
South Australia  
Phone(08) 8557 8787  
Mobile(0418) 823 432

To: Adam Johnson Design

28 June 2023

Attn: Mr Adam Johnson  
cc: Ms Sue Bastian

Total # pages: 38

From: Phillip Baker

Status: Priority

Project: Tourist Accommodation  
Balhannah

Project Code: SBT-12269

Subject: Variation to Condition (5) of DA  
Response to EPA DAI Request: PDI 557

eMail: [aj@adamjohnsondesign.com.au](mailto:aj@adamjohnsondesign.com.au)

Website: [www.landenergy.com.au](http://www.landenergy.com.au)

eMail: [phaker@landenergy.com.au](mailto:phaker@landenergy.com.au)

- |   |                                 |  |
|---|---------------------------------|--|
| <input checked="" type="radio"/> Report | <input type="radio"/> Statement | <input type="radio"/> Document Transmittal |
| <input type="radio"/> Notification      | <input type="radio"/> Proposal  | <input type="radio"/> Request Information  |

*This document may contain confidential information. If you receive this transmission in error please notify us immediately.*

Dear Adam,

**Re: DA No. 19/1064 (& 23008597) - 11 Onkaparinga Valley Road, Balhannah**

Further to various discussions with Adelaide Hills Council officers in relation to the above matter, and as a result of extensive consultation with a range of government departments, I provide below a summary of the proposed wastewater management system to service the proposed tourist accommodation units as well as the existing dwelling on the subject site (CT 6122/499 : LT 80 D92095).

As you are aware, this will be the fourth design proposal for a wastewater treatment system relating to this project, the first of which dates back to 2019. In 2021, acting on initial advice from SA Water that an accessible sewer line traversed the subject site, and that there appeared to be no impediments to connecting the property to this sewer line, a third wastewater management system proposal was developed and submitted to AHC for approval, which was granted on 13 October 2021.

However, in December 2022 after a protracted technical review by SA Water of the engineering details of the proposed sewer connection, it was eventually deemed that the local sewer network had insufficient capacity to support the proposed connection. Since the October 2021 approval was granted on the basis of, and contingent on the sewer connection, this necessitated a review of the wastewater treatment options for the proposed development, and the preparation of a fourth proposal to form the basis of an application.

This fourth proposal was prepared in early March 2023 in support of a variation to Condition (5) of DA 473/1064/2019; in effect to substitute the SA Water sewer connection with connection to an on-site wastewater system. The application for this variation was referred to the EPA by Adelaide Hills Council, and in response to this referral, the EPA issued a Development Application Information Request (DAIR), seeking further information and responses to specific issues relating to wastewater treatment and stormwater management, among others.

As the subject site is located in the Mount Lofty Ranges Water Protection Area, and consistent with the recently issued guideline, *EPA assessment of development applications in the Mount Lofty Ranges water supply catchments*, the EPA is seeking to ensure that the proposed development (variation) will have a neutral or beneficial effect (NorBe) on the quality of any water draining from the site. The following report has been prepared to address specific matters raised in the DAIR, including relevant information pertaining to both the original and variation application, and incorporates the use and/or consultation of the references listed below:

- EPA 1143/23 - EPA assessment of development applications in the Mt Lofty Ranges water supply catchments
- SA EPA - Wastewater Irrigation Evaluation Tool
- Water NSW - NorBe -User-Guide-for-Consultants
- Vic EPA - Technical information - Victorian guideline for water recycling Publication 1911.2 March 2021
- SA Health - On-site wastewater systems code (2013)
- WSSA - Water Sensitive SA Insite Water Tool

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**Wastewater Engineers Report and Supporting Information**  
**On-site Wastewater Treatment System for Two Tourist Villas & Residence**

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## Sue Bastian & Brian West

### **Wastewater Engineers Report and Supporting Material** **On-site Wastewater Treatment System for Two Tourist Villas & Residence**

#### 1. INTRODUCTION

The proposed development is for the construction of two free-standing tourist accommodation villas, approximately 100 m apart in the western section of the subject site, located at 11 Onkaparinga Valley Road, Balhannah. The Site Plan prepared by Adam Johnson Design, and accompanying the development (variation) application, shows the location of the site with respect to adjacent properties, the position of the two villas and the existing main dwelling, access tracks and parking bays.

##### 1.1 Wastewater Treatment & Re-use

In order to service the two tourist accommodation units as well as the existing residential dwelling, it is proposed to install a totally enclosed sewer pump station, which will accept sewage waste inflows by gravity from both units (refer Attachments 1 & 2), macerate and transfer the waste via a 50 mm HDPE pipeline, to a new Aerobic Wastewater Treatment System (AWTS) situated near the existing residence (Refer Attachment 3).

The new AWTS will accept comminuted sewage flows from the Villa pump station as well as raw sewage discharge from the existing residential dwelling via a graded drain junction, and will replace the existing septic tank and soakage system currently serving the house. Wastewater treatment loading calculations have been completed in accordance with the On-site Wastewater Systems Code - 2013 (the Code), and indicate that an AWTS such as the FujiClean ACE 3000 will provide sufficient flow and organic loading capacity to effectively treat wastewater from both tourist villas and the existing residential dwelling. The loading calculation sheet is provided at Attachment 4.

Treated wastewater will be transferred to a dedicated irrigation area approximately 200 m from the existing dwelling. The sizing of the wastewater irrigation re-use area has been determined using the *EPA Wastewater Irrigation Evaluation Tool (WIET)* in Section 2.3 below. This utility takes into account the main inputs and variables involved, including the performance of the specified AWTS, and determines the required irrigation area which will result in a neutral or beneficial effect (NorBE), particularly with regard to nutrient loading and balance. The results of the WIET spreadsheet including input data are shown in Attachment 11.

Attachment 7 provides layout and dimensional details of the irrigation area, and Attachment 8 is a site layout drawing which shows the relative positions of the main elements of the proposed development, and also provides drawing sheet references. All elements of the wastewater collection, treatment and re-use system are sited more than 50 m from the Onkaparinga River, and above the Extreme flood prone area as per Figure AdHiFPA/10 of the Adelaide Hills Council Development Plan (2019).

##### 1.2 Proposed Works

Given the size of the property at approximately 13 ha, and the distance between each villa, it is proposed that both villas be serviced by a single SA water-approved sewer pump station, which will deliver sewage to an SA Health-approved AWTS. The existing dwelling will also discharge into the AWTS, after disconnection from, and de-commissioning of, the existing septic tank system (refer to Section 5.2). The secondary treated wastewater will then be irrigated to the dedicated irrigation area, on the basis that:

- *The proposed pump station and AWTS are reliable and robust systems, requiring > 2 yearly pump out of the AWTS primary tank, and a quarterly service of the unit which will be located to allow ready tanker access from the site access track.*
- *The plumbing configuration at the junction of the Villa sewer drains will mean that any potential wastewater issues experienced at one villa will not impact directly upon the other.*
- *The areas available with relatively even slopes allows the system design to maintain the required drainage grades, without excessive depth, which reduces the likelihood of blockage, and improves access for plumbing maintenance and servicing.*

- The AWTS will be located within a short distance of the main dwelling which will provide access to power and an ideal location for the mounting of the Alarm Panel.
- Power supply to the sewer pump station will be available via the West Villa. The pump station will be equipped with a liquid level sensor which will provide a visual alarm warning if levels are higher than nominal. The pump station will have both duty and standby pumps installed.

Taking advantage of the even slopes in the vicinity of, and between the villas, gravity drains will be installed from each villa to a common 3,150 L sewer pump station. The comminuted wastewater will be pumped from the pump station approximately 300 m to the AWTS adjacent to the main residence and after treatment, applied to a 1,520 m<sup>2</sup> dedicated irrigation receiving site. Attachment 1 and 2 show the location and layout of the wastewater system for the West Villa and East Villa respectively, with the former also showing the location and configuration of the pump station. Attachment 7 details the layout of the irrigation area, and Attachment 8 provides an overview of the respective locations of the main infrastructure elements in the context of the broader property, and the drawing sheet set-out.

### 1.3 Internal & External Villa Plumbing

The sanitary plumbing layout is shown for each of the two villas in Attachment 3. The two en-suite bathrooms in each villa will contain a dual-flush toilet, hand basin, shower and 250 L spa bath. The kitchen in each villa will be equipped with a sink, and the adjacent scullery will also have a sink and a dishwasher.

External plumbing pipework, with respect to the position of vents and inspection points differs between the two villas only in the sense that they are mirror-images of each other, as a consequence of the ground slope and different orientation of each villa. All external plumbing pipe runs will be laid with a fall of at least 2.0 % or 1 in 50.

### 1.4 Wastewater System Loading Rates & Capacity

This report has been prepared as part of an application to Adelaide Hills Council for Wastewater Works, to undertake the installation and commissioning of the proposed system and associated works in accordance with Council guidelines and the SA Health *On-site Wastewater Systems Code, 2013*. All wastewater generated by the various fixtures and uses from each villa is incorporated into the Minimum Effective Capacity (MEC), daily flow and design organic capacity loading calculations outlined in Table 1 below. The system does not require a minimum flow or biological loading rate for proper operation, unless there is no waste input for an extended period (nominally 3 months) – which is considered highly unlikely in this situation.

**Table 1. Wastewater Design Loadings (Two Villas & Main Dwelling Combined)**

Code Appendix E Premises Category	Sludge/Scum Rate		Daily Flow Rate		BOD Loading
	# Persons (P1)	Rate: L/p/y (S)	# Persons (P2)	Rate: L/p/d (DF)	Rate: g/p/d
Dwelling (3BR)	6	80	6	150	50
Tourist Accom. (2BR)	4.4 (55%)	48	8	100	40
Spa Baths	4 units	5 L/spa/day	4 units	250 L/spa/day	5
<b>Resultant Totals</b>	711.2 L/year		2700 L/day		640 g/day
<b>Minimum Effective Capacity (MEC) =</b>	$(P1 \times S \times Y^*) + (P2 \times DF)$				
	$(711.2 \times 2.3) + (2700) = 4,336 \text{ L}$				

Based on Equations 1 & 2, and Appendix E of the *On-site Wastewater Systems Code*. \* Y = 2.3 Years (SA Health Data)

Attachment 4 provides a more comprehensive coverage of the design loading calculations for the aerobic treatment system. A FujiClean ACE 3000 treatment system has been specified for this application, as this system will provide adequate capacity to accommodate the combined loads imposed by the two villas and the main dwelling combined. These loading calculations include allowances for the contribution of the spa baths in accordance with section 5.4 of the Code. Table 5-6 of the Code – *Design Criteria for Spa Baths* – indicates that no increase for sludge/scum capacity or BOD<sub>5</sub> load is necessary, however a nominal additional loading of 5 L/unit and 5 g/unit respectively is considered appropriate in this instance given the relatively large proportion of the Daily Flow potentially contributed by the spa baths in the proposed configuration.

**2. IRRIGATION AREA SIZING**

Note: In areas of the State which are less vulnerable than those within the Mount Lofty Ranges Water Protection Area (MLRWPA), the Onsite Code provides design guidance for sizing of wastewater irrigation areas based on Hydraulic Loading Rate (HLR) and Design Irrigation Rate (DIR), the latter generally being derived from the soil characteristics of the site. In the case of the subject site – being within the MLRWPA – EPA 1143/23 overrides the Code for this purpose. However for the sake of comparison and completeness, both sizing methods are discussed in the following sections.

**2.1 Irrigation Area under the Onsite Code**

Based on data obtained from site investigation and soil classification as discussed below, incorporating the design loadings and capacities described above and in accordance with the Code, the Design Irrigation Rate (DIR), and the irrigation receiving site area required, based on daily wastewater flow calculations, would be given by:

$$\frac{\text{Hydraulic Loading Rate (HLR)}}{\text{Design Irrigation Rate (DIR)*}} = \frac{2,700 \text{ L/day}}{4.5 \text{ L/m}^2\text{/day}} = 600 \text{ m}^2$$

\* Derived from soils data (Section 2 below) & Table 8-2 of the Code

The required irrigation application will be achieved by the installation of a drip irrigation system covering an area of 625 m<sup>2</sup> with dimensions 25 m x 25 m. To determine the design requirements for the irrigation area, soil survey and classification data published by the Department of Water, Land and Biodiversity Conservation, Soil and Land Information (2005), was assessed for the relevant characteristics and interpreted for application to the On-site Code, and is discussed further in section 2.2 below.

**2.2 Landform and Soils**

The landscape is characterised by undulating to rolling rises and low hills with moderately deep loamy texture contrast soils. The soils of the lower slopes characteristic of the site are mainly loamy, usually with clayey subsoils, moderately well-drained and inherently fertile, although prone to acidification.

Soil and Land Information soils mapping (DWLBC 2005) provides information on the soil and land types of the area. Figure 1 below shows an extract for the Balhannah area including the approximate boundaries of the proposed development site, delineated by the heavy blue line.

**Figure 1. Balhannah Tourist Villas Site Soil Type**



Balhannah is within the Hahndorf land system (HAH), underlain by siltstones, shales and minor calcareous beds of the Balhannah Shale Formation. There has been extensive deposition of eroded and fluvial materials on the lower slopes and valley flats. Most of this material is a combination of fine grained and sandier sediments.

Figure 1 above indicates that the section of the subject site on which the proposed development is to occur, lies within the AbC Soil Landscape Unit, which comprises some 11% of the soils in the Hahndorf land system. This soil unit is generally well suited to perennial horticulture and improved pastures.

Based on site assessment, the predominant soil represented in the western half of the subject site can be described as Sandy Loam to Loam over Brown Clay on deeply weathered fine grained rock. In terms of soil classification in the context of the Code and permeability for irrigation performance, the combination of fine and coarse grained material and the documented well-drained nature of the soils, would indicate a Design Irrigation Rate (DIR) of at least 5 L/m<sup>2</sup>/day (5 mm per day), however in consideration of the moderate fall across the irrigation area (approx. 10%), the lower default rate of 4.5 L/m<sup>2</sup>/day has been adopted. Attachments 5 and 6 provide information on the generic soil profile description and a summary of physical and chemical properties produced by DWLBC.

### 2.3 Irrigation Area under EPA Guideline 1143/23

As well as the design data shown in table 1 above, the Wastewater Irrigation Evaluation Tool (WIET), which is an adjunct to the guideline, requires additional information to enable the calculation of nutrient loading and uptake rates – specifically Nitrogenous species – and the determination of a NorBE Pass or Fail. That is an irrigation area and cropping regime combination which would be sufficient to take up the quantity of Nitrogen in the wastewater applied by the on-site wastewater system.

Table 2 below provides a breakdown of the wastewater production rates for each of the two proposed villas and the existing dwelling. The occupancy rates shown are consistent with those previously suggested by the EPA as being a reasonable estimate of the average annual rate of usage for both the domestic dwelling (365 days/year), and the villas (200 days/year). To facilitate the use of this composite data in the WIET spreadsheet, a flow-weighted mean value of 255 days/year has been used.

**Table 2. Wastewater Production Rates – Premises Contributions**

Combined Premises	West Villa	East Villa	Main Dwelling	Total / Mean*
# Bedrooms	2	2	3	7
Max. # Persons (EP)	4	4	6	14
Max. Occupancy Rate	55%	55%	100%	70%*
Max. # Days Occupancy	200	200	365	255*
Specific Flow Rate	100 L/p/day	100 L/p/day	150 L/p/day	-
Wastewater	400 L/day	400 L/day	900 L/day	1,700 L/day
Spa Baths (250 L)	2 x 250 L/day	2 x 250 L/day	-	1,000 L/day
<b>Total Flow Rate</b>	<b>900 L/day</b>	<b>900 L/day</b>	<b>900 L/day</b>	<b>2,700 L/day</b>

\* Flow-weighted Mean – Equivalent # Days Site Occupancy per year.

### 3. DETAILS OF PROPOSED AWTS

Based on the loading estimates and capacities detailed in table 1, an AWTS with a nominal capacity of 20 EP is proposed to treat the wastewater generated by the villas and the residence at the subject site. Table 3 below provides detailed specifications for the selected system. Attachment 9 provides information, diagrams and technical details of the proposed AWTS published by the manufacturer, FujiClean Australia.

The proposed ACE 3000 AWTS will be installed with:

- Internal alarm panel – MKII Treatment Monitor Unit
- External blower box and air-line connections
- Minimum 2,000 L pump-out chamber to AS1546

**Table 3. AWTS Specifications**

Detail		Specification
AWTS Model		FujiClean ACE 3000
Manufacturer		FujiClean Australia Pty Ltd
Construction Material		Fibre Reinforced Polyester (FRP)
SA Health Approval Number		WWP-20107 (Exp. 15 August 2026)
Design Loading Capacity	Equiv. Persons	20
	Hydraulic	3,000 L/day
	Organic	1,060 g BOD <sub>5</sub> /day
	Minimum	No specific minimum loading requirement
Sedimentation Chamber Capacity		3,169 Litres
Anaerobic Filtration Chamber		3,177 Litres
Aerobic Contact Filtration Chamber		1,431 Litres
Clarifier/Disinfection Chamber		747 Litres combined
Air Blower/Pump		FujiMAC200 RII, 200 L/m, 140 Watt, 0.53 Amp, Single Phase, 240 Volt
Air Diffusers		Coarse bubble PVC tube manifold
Irrigation Pump		TBC. Submersible Centrifugal, Duty: 28 L/m @ 22 m TDH, Single-phase, 240 V
Chlorination		Calcium Hypochlorite tablet dosing system
Alarm System		FujiClean MKII Treatment Monitor Unit

### 3.1 FujiClean ACE 3000 AWTS - Operational Description

#### *Sedimentation Chamber:*

*This chamber is designed to physically separate the solids from the incoming water*

#### *Anaerobic Filtration Chamber:*

*This chamber contains a spherical-skeleton type of filter media. Through bacterial growth processes on the surface of the filter media, biological anaerobic treatment thrives while suspended solids are captured. Furthermore, the bacteria in this chamber convert nitrates in the recirculated water returning from the aerobic chamber to gaseous nitrogen. The nitrogen then escapes to the atmosphere*

#### *Aerobic Contact Filtration Chamber:*

*The aeration chamber consists of upper section with net-block media and lower section with net hollow-cylindrical media. Organic matters are decomposed by micro-organism/bacteria on the media surface while suspended solids are captured in media. Furthermore, suspended solids accumulated on the bottom are constantly transferring to the sedimentation chamber by a recirculation air-lift pump*

#### *Clarification/Disinfection Chamber:*

*This chamber is designed to temporarily store treated water flowing from the aeration chamber. In this chamber, the suspended solids settle to the bottom and are returned to the sedimentation chamber. The treated water from the clarification chamber passes through the chlorinator for final disinfection.*

#### *Pump-out Chamber:*

*The treated water from the disinfection chamber flows into the pump-out chamber. This is a separate tank installed in-line with the ACE 3000 unit, with a minimum capacity of 2,000 L including 1,500 L of emergency storage capacity.*

**Final effluent quality:**

A properly installed and maintained aerobic waste water treatment system produces treated water of a very high quality. As a minimum standard required by SA Health the following standards apply:

- *BOD<sub>5</sub> – less than 20mg/L*
- *Suspended Solids – less than 30mg/L*
- *Free residual chlorine – min 0.5mg/L*
- *Faecal Coliforms – not more than 10 per 100ml*

**3.2 Maintenance & Servicing**

The owner of the on-site wastewater system shall enter into a maintenance and service contract in respect of the newly installed AWTS. Maintenance and servicing shall be undertaken by appropriately trained personnel with experience in servicing wastewater systems. The AWTS shall be serviced at three-monthly intervals in accordance with the manufacturers recommendations. The owner shall also ensure that:

1. Operation and maintenance procedures are undertaken according to a regular schedule appropriate to the nature and type of the on-site wastewater treatment and land application system, and in accordance with any manufacturers or designers instructions and/or any conditions of approval from the relevant authority, and;
2. Continuity of operation and maintenance is achieved throughout changes of ownership, occupier and/or use or any development of the premises.

**3.3 Sedimentation Tank – Sludge/Scum Pump-out**

At the anticipated full design capacity, based on maximum loadings and sludge accumulation rates as specified by the Code, the total annual sludge volume ( $P1 \times S$ ) is calculated at 711 L/year. The de-sludge frequency nominated in the product approval specification is 2.3 years or as required. This would indicate a maximum accumulation of 1,635 L of sludge & scum in the 3,169 L sedimentation chamber (approximately 52%) between pump-outs.

The additional hydraulic loading imposed by the spa baths can potentially increase the daily flow rate directed to the wastewater treatment system, but is assessed to produce only a minimal increase in the sludge/scum accumulation or biological loading on the system, which has been taken into account in the design calculations as shown in Attachment 4.

**3.4 Installation & Commissioning**

A licensed plumbing contractor is required to install the AWTS and connect it to the sewerage pipework from each premises, as well as installing and commissioning the dedicated wastewater irrigation system. Certificates of Compliance (CoC's) will be required for all work undertaken in relation to the application, and submitted to local Council, by the licensed plumber within 28 days of completion and commissioning of the works.

**4. SITE SUITABILITY**

Ample gravity flow fall is available from the villa drains to the proposed site for the main transfer pump station. Macerated sewage will then be pumped to the AWTS near the existing residence. The maximum modal slope across the diagonal of the irrigation field is approximately 10%. The villas will be approximately 40 m to 60 m away from the pump station and a minimum of 90 m away from the irrigation area.

Table 4 below lists site-specific criteria and indicates the respective status in the context of the Code and application for approval of the proposed works.

**Table 4. Site & Works Information**

Specific Criterion	Comment
Soils	Generally suitable. Profile drainage dictated by subsoil clays. DIR nominated at 4.5 L/m <sup>2</sup> /day
Water Table	Confined aquifer (Ndw) at >68 m, SWL 13 m depth. No locally observed shallow water table
Land Slope	Between 8% and 13% in relevant sections
Land Use	Cattle grazing
Available Space	Entire site 12.7 ha – main activities < 1.0 ha
Trade Waste	Nil
Affected Vegetation	Nil – unimproved pasture. No nearby significant trees
Site Modifications	Excavation & preparation as described
Surface/Sub-surface Flow Diversion	Rainwater tank overflows diverted away from system. Run-on & Run-off diversion bunds to irrigation area
Well or Dam in Close Proximity	Stock bore within 50 m upslope of irrigation area at 68 m drilled depth. Dam > 50 m from all wastewater works
Watercourses*	Onkaparinga River > 50 m from development
Earthworks Proposed for Works	Excavation for AWTS & Trenching (≈ 80 m <sup>3</sup> )
Adjoining Allotments	Mainly cropping, some grazing

\* Refer Section 4.1 below

#### 4.1 Watershed (Primary Production) Zone

Under the Adelaide Hills Council development plan, Tourist Accommodation is classified as non-complying development unless it can be shown to satisfy certain criteria including a set of Non-complying Exemptions as listed in table AdHi/5 of the development plan. Table 4 below briefly lists the exemption criteria and provides specific information in relation to the proposed development to address each of them.

**Table 5. Non-complying Exemptions (AHC DP Table AdHi/5)**

Exemption	Criteria	Proposed Development Status
a	Not located on land subject to flooding as shown in Figure AdHiFPA/10	Closest villa located > 40m from extreme flood hazard zone limit, and > 10 m higher. Refer Attachment 12
b	Connected to Code-compliant On-site Wastewater treatment/disposal system	Installation of single Code-compliant system as proposed for approval
c*	No part of irrigation field within 50m of SA Govt-defined watercourse	Closest edge of proposed irrigation field is situated 150 m from the Onkaparinga River
d	Disposal area not on land with slope >20%, or bedrock/watertable < 1.2m	Maximum irrigation area slope 10%. Both bedrock and watertable > 1.2m
e	Septic tank (AWTS) not located on land likely to be inundated by a 1-in-10 flood event	Pump Station and AWTS located above 1-in-100 year flood hazard zone. Refer Attachment 12
f	Sited at least 25m from SA Govt-defined watercourse	Closest premises is situated 52 m from Onkaparinga River
g	Has a secure, potable water supply of at least 125 L/p/day to SA Health Standards	Water supplied from rainwater tanks supplemented by bore water as required

\* Less than 11 guests: Exemption c(i) & (ii) not applicable

Based on the information provided above, the proposed development would be considered exempt from non-complying development status, provided other relevant conditions are satisfied.



## 5. SPECIFIC INFORMATION REQUESTED

Specific issues either not, or not fully covered in the revised Wastewater Engineer's Report above, are addressed under the main headings, and in the approximate order as they appear in the DAIR issued by the EPA on 13 April 2023 (Ref: PDI 557).

### 5.1 Further Information

In order to demonstrate a neutral or beneficial effect (NorBE) with respect to the proposed wastewater irrigation area, the wastewater irrigation evaluation tool (WIET) was used, based on the information and input data detailed above in Section 2.3 and Table 2. The AWTS unit specified for installation, is the FujiClean ACE3000, which is approved by SA Health and certified against AS 1546.3:2017. Treated effluent test results, including Total N reduction rates have been published by Global Certification Pty Ltd (presented as Attachment 13). The Total Nitrogen reduction rate – as tested and certified – of 61.25%, has been entered into the WIET data set for the ACE3000 unit, resulting in a residual concentration of 31 mgTN/L in the treated effluent, which is lower than the average of the units cited in the EPA's DAIR letter.

Most of the design parameters suggested in the DAIR are accepted and have been adopted as input values for the design loading calculations required, the main exception being the allowance for the proposed two (2) Spa Baths to be fitted to each accommodation villa, making a total of four (4) 250 L Spa Baths, which contributes an additional 1,000 L/day to the Daily Flow allowance (refer to Table 2 above). The impact of the maximum design allowance for the Spa Baths is to increase the loading calculations by more than 30%. While this is appropriate for the daily flow loadings, it is expected that the Total N loadings in the Spa Bath wastewater would be significantly lower than that of the rest, and would therefore over-estimate the Total N concentration of the daily wastewater volume, which would infer that the Total N in the treated effluent would be considerably lower than the WIET calculation results suggest, making the proposed design relatively conservative.

Attachment 11 shows the input data and results page of the WIET, which produces a minimum irrigation area requirement of 1,423 m<sup>2</sup>. The proposed size of the irrigation area is 38 m x 40 m or 1,520 m<sup>2</sup>, to be planted consistent with the Crop & Nutrients category of *Shrubs and some trees (fully managed)*. The result of this combination of input variables into the WIET is a **NorBE Pass**, demonstrating the required nutrient balance.

Another four requirements in relation to the irrigation area were also listed in this section of the DAIR:

- *located > 50 m from any nearby watercourses or bores.* Table 4 above refers.
- *on a slope < 20%.* Table 4 above refers.
- *groundwater > 1.2 m below the surface.* Table 5 above refers.
- *is not located in a 10% AEP flood zone.* Attachment 12 refers.

### 5.2 Wastewater Management

1. The most recent proposal document was a deliberately limited enquiry as to whether the general concept of a single on-site system servicing tourist accommodation as well as an existing residence was likely to be received favourably after three previous design proposals has been unsuccessful. The complete Wastewater Engineer's Report which was prepared in support of Development Application 473/1064/2019 has been revised and updated, and is presented in sections 1 to 4 above, and includes all related attachment.

2.
  - a. Section 5.1 and Attachments 7 & 11 refer.
  - b. Attachment 11 refers.
  - c. The primary mechanism for the removal of vegetative biomass from the irrigated area, will be the regular pruning of the established shrubs and tress, generally arranged in rows, to enable a small tractor or 4WD vehicle to traverse the area in order to slash grasses or weed growth, apply sprays as required, inspect and maintain the irrigation infrastructure, and remove any individual trees which have succumbed to disease or pest infestation.
  - d. Attachment 8 and table 4 refer. The AWTS would be approximately 50 m from the farm dam, and 100 m from the Onkaparinga River. The wastewater irrigation area would be approximately 60 m from the farm dam, and 150 m from the Onkaparinga River.
  - e. The proposed system will include alarms as required. Section 1.2, section 3 and table 3 refer.
  - f. The Pump Station and AWTS will be in-ground, and the irrigation area will be bunded as shown in Attachment 7. Table 4 also refers.

3. The existing on-site wastewater system will be de-commissioned – Section 1.2 refers. Once disconnected from the main house sewer, the existing septic tank will be pumped empty by a licenced tanker contractor, lid and any rise removed, and the base of the tank will be pierced with an excavator-mounted rock-breaker attachment. Spoil from the AWTS excavation will then be used to fill the old septic tank to ground level.

4. No spa (apart from the Spa Baths for the Villas) or swimming pools are proposed as part of this development. However, there is an existing swimming pool at the main residence. It is understood that pool-filter backwash water is directed to the on-site farm dam, water from which is used to irrigate the extensive grassed and landscaped areas around the residence – a long-standing practice which does not appear to have produced any adverse effects on livestock, vegetation or the broader environment.

### 5.3 Stormwater Management

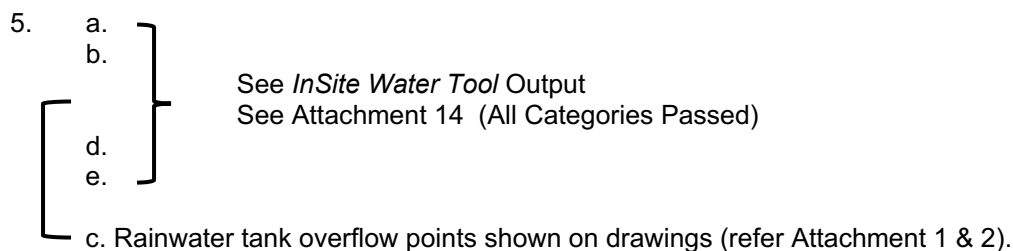
The proposed access tracks to service the tourist accommodations units (total area 1,288 m<sup>2</sup>) will be constructed using compacted rubble with 14mm Myponga screenings, which will have an infiltration rate greater than the surrounding soil. The combined roof areas of the tourist accommodation and the existing residence is 628 m<sup>2</sup>. Thus the total surface area of hydrological perturbation to the site, including the wastewater irrigation area is approximately 4,500 m<sup>2</sup> taking into account the driveway and gardens etc. associated with the existing residence. This 'developed part' of the site comprises less than 4% of the total 12.7 ha rural property, which realistically places the site and the proposed development outside of the context of what would typically be regarded as residential, commercial, industrial or institutional development, stated as being the primary foci of the WSUD performance principles and targets. Notwithstanding this aspect of the proposed development, point 5 of the DAIR has been addressed by using the *InSite Water* tool as suggested.

The main design criteria inputs into the InSite Water tool for the purposes of this assessment were;

- 192.0m<sup>2</sup> of Roof NOT connected to Main Residence, draining to 100m<sup>2</sup> of Grass Buffer Strip
- Rainwater tank Volume = 22500 litres connected to 218m<sup>2</sup> of roof, additional detention tank volume included = 0 litres
- Rainwater tank Volume = 22500 litres connected to 218m<sup>2</sup> of roof, additional detention tank volume included = 0 litres

Based on this and other required input data, the tool has calculated an estimated average total building occupancy of 11.2 persons, a Volume result of a 38.1% decrease in runoff volume (Pass), a Flow result of an 11.1 m<sup>3</sup> decrease in peak discharge (Pass), a Quality result of a 138% improvement in runoff water quality (Pass), and a 47.6% reduction in potable water use (Pass).

The following two sections are direct responses to points 5 and 6 of the DAIR:

5. 
- a.   
 b.   
 d.   
 e.   
 c. Rainwater tank overflow points shown on drawings (refer Attachment 1 & 2).
- See *InSite Water Tool* Output  
See Attachment 14 (All Categories Passed)

### 6. Construction Erosion and Sediment Control Summary.

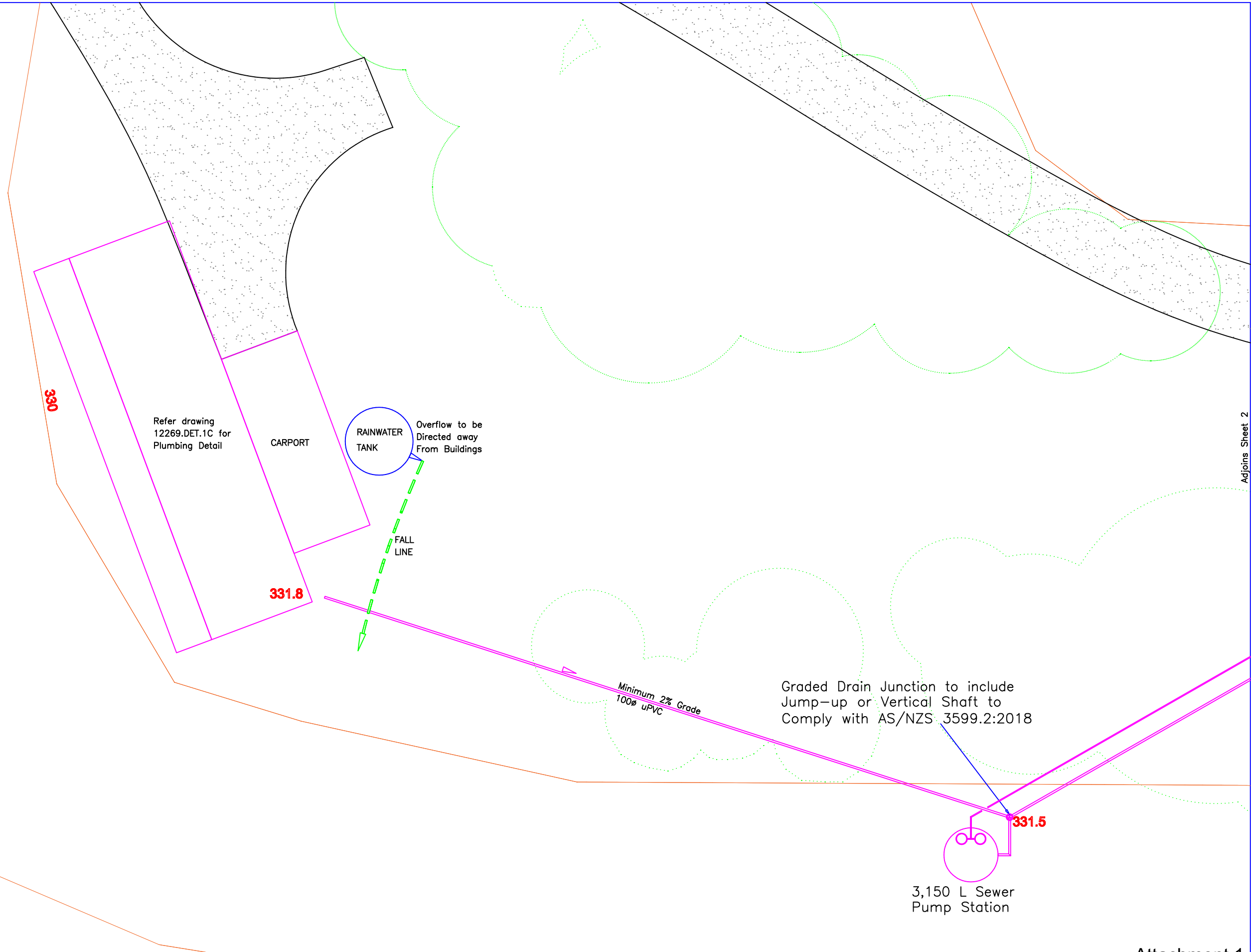
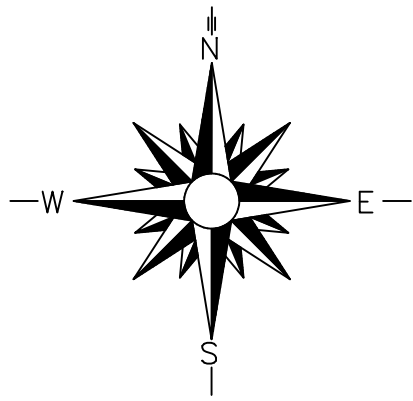
- The simple rubble and aggregate entrance track construction and strip footings of the tourist accommodation units will require relatively minimal excavation and soil disturbance.
- Spoil from the excavation of the pump station and the AWTS will be trucked offsite as it is removed, and not stockpiled.
- Construction activity involving significant soil disturbance will be staged to minimise the area exposed to the weather at any given time.

- The proposed Villa locations and orientations are arranged approximately across the fall-line and along the topographical contours to reduce the elevation difference over the construction footprint.
- Site conditions and construction operations is to be continuously evaluated, and temporary erosion and sediment control measures such as straw-bales and sediment fences implemented as required.
- Rainwater tanks are to be connected to downpipes as soon as practically possible after roof completion, to avoid roof-water discharge to disturbed ground.
- Temporary upslope (run-on) diversion swales to be used to direct surface stormwater around the Villa construction sites.
- Tracking of soil or mud onto the roadway at the construction plant entry/exit point will be prevented by carrying out access track earthworks, including a base of compacted rubble prior to any subsequent site vehicular access. A washdown point at the access cross-over location will also be provided.

## 6. ATTACHMENTS & PLANS

- Attachment 1 – Detailed Site Layout Plan (West Villa) & Pump Station – 1:200 (A3)
- Attachment 2 – Detailed Site Layout Plan (East Villa) – 1:200 (A3)
- Attachment 3 – Detailed Building Layout & Plumbing Plan 1:100 (A3)
- Attachment 4 – System Design Loading Calculation Table
- Attachment 5 – DWLBS AbC Soil Profile Description
- Attachment 6 – Summary of Soil Physical & Chemical Properties
- Attachment 7 – Detailed Site Layout Plan (Irrigation Area) – 1:250 (A3)
- Attachment 8 – Overall Site Layout & Location Plan (infrastructure) – 1:1500 (A3)
- Attachment 9 – ACE 3000 AWTS Technical Brochure (3 Pages)
- Attachment 10 – Onsite Code Appendix D – Suitable Plants for Recycled Water Irrigation
- Attachment 11 – EPA Wastewater Irrigation Evaluation Tool (WIET) – Input, Output & annotations
- Attachment 12 – 10% AEP Flood zone. <https://spapps.environment.sa.gov.au/WaterConnect-FAM>
- Attachment 13 – ACE3000 AWTS Product Performance Test Results Certificate
- Attachment 14 – InSite Water Tool - Stormwater Calculations Report - WSSA

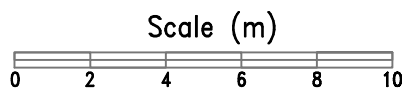
Prepared by:  
Phillip Baker B.Sc. M.Eng.  
Principal Environmental Engineer  
Land Energy Pty Ltd  
28 June 2023



Adjoins Sheet 2

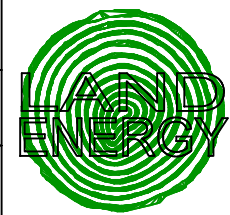
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NOTES: Natural Surface Levels from Survey  
 All Pipework to WSAA Standards  
 Set-out subject to site confirmation  
 IP Locations determined on site



DRAWING	12269.LAY.1D	SHEET	1 of 4
ISSUED	01 March 2023	SCALE	1:200 @ A3
LEVELS	As shown (AHD)	CHECKED	PAB
CAD.FILE	Balhannah Villas Baseplan.dwg		

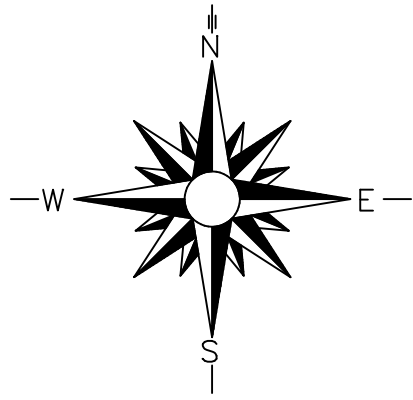
PROJECT	TOURIST ACCOMMODATION VILLAS – BALHANNAH WASTEWATER SYSTEM & SEWER CONNECTION
CLIENT	SUE BASTIAN & BRIAN WEST
TITLE	WEST VILLA, MAIN DRAINS & PUMP STATION



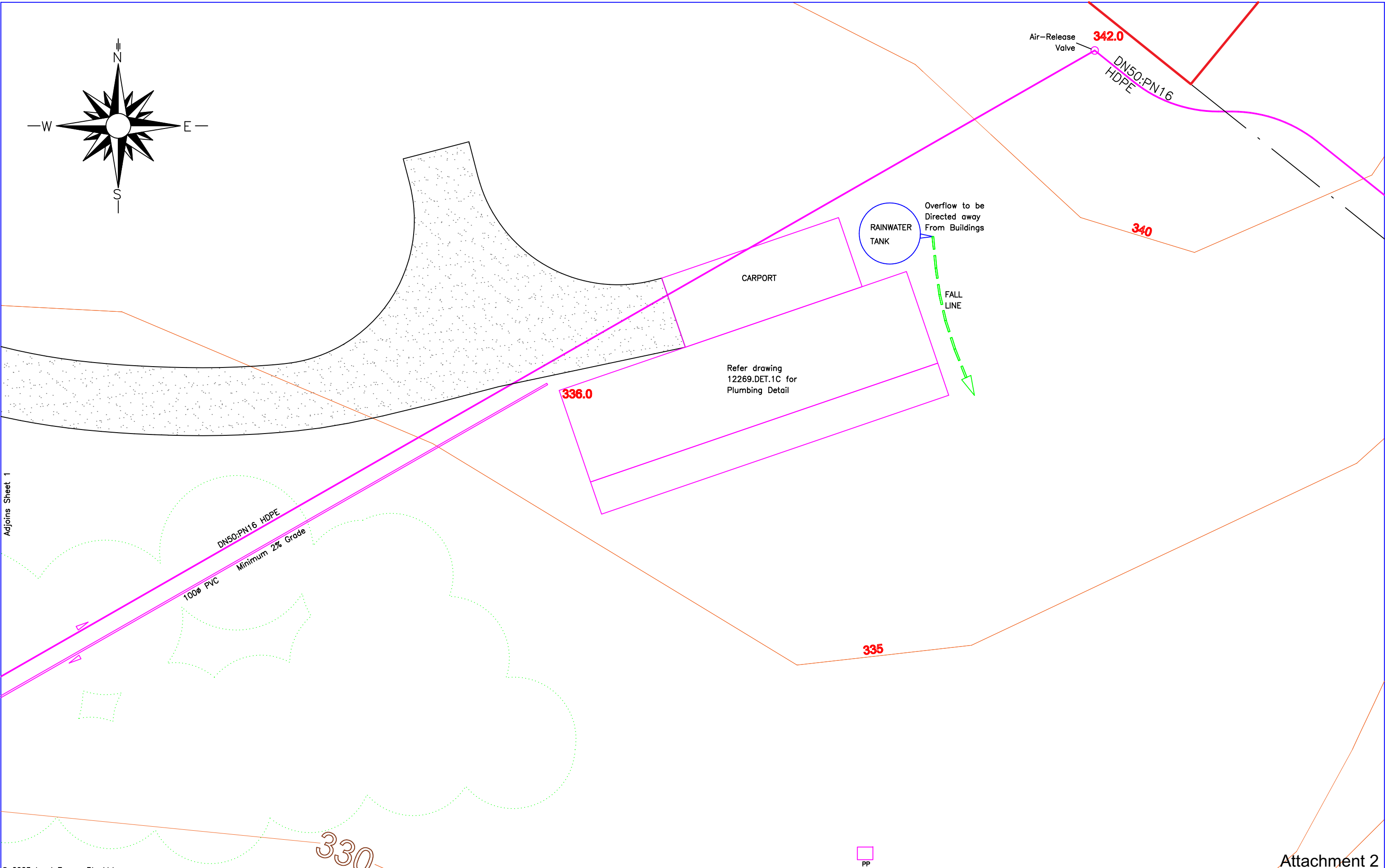
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Attachment 1



Adjoins Sheet 1

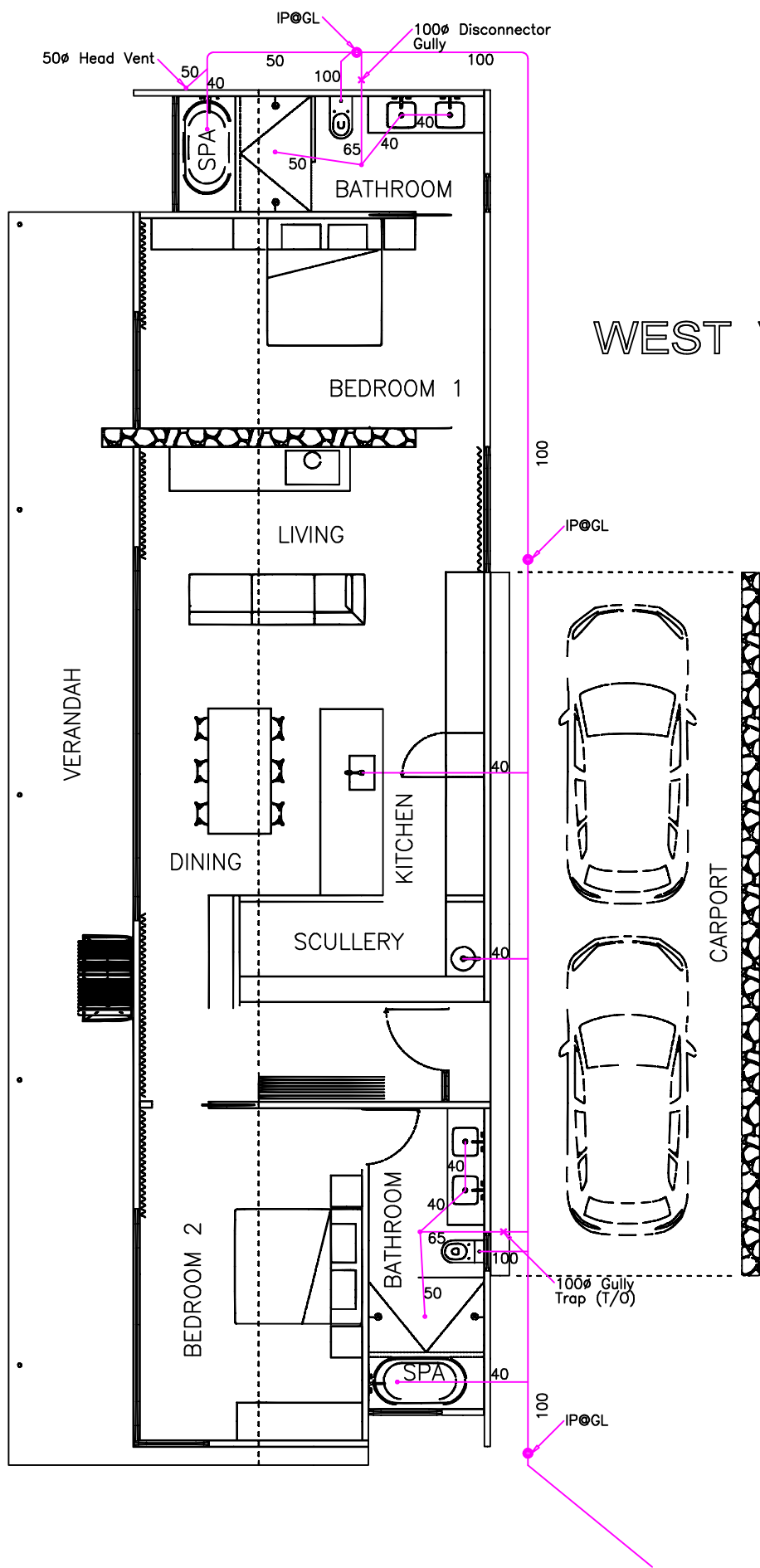


<p>NOTES: Natural Surface Levels from Survey All Pipework to WSAA Standards Set-out subject to site confirmation IP Locations determined on site</p> <p style="text-align: center;">Scale (m)</p>	DRAWING	12269.LAY.1D	SHEET	2 of 4	PROJECT	TOURIST ACCOMMODATION VILLAS – BALHANNAH WASTEWATER SYSTEM & SEWER CONNECTION
	ISSUED	01 March 2023	SCALE	1:200 @ A3	CLIENT	SUE BASTIAN & BRIAN WEST
	LEVELS	As shown (AHD)	CHECKED	PAB	TITLE	EAST VILLA, PUMPED SEWER RISING MAIN
	CAD.FILE	Balhannah Villas Baseplan.dwg				

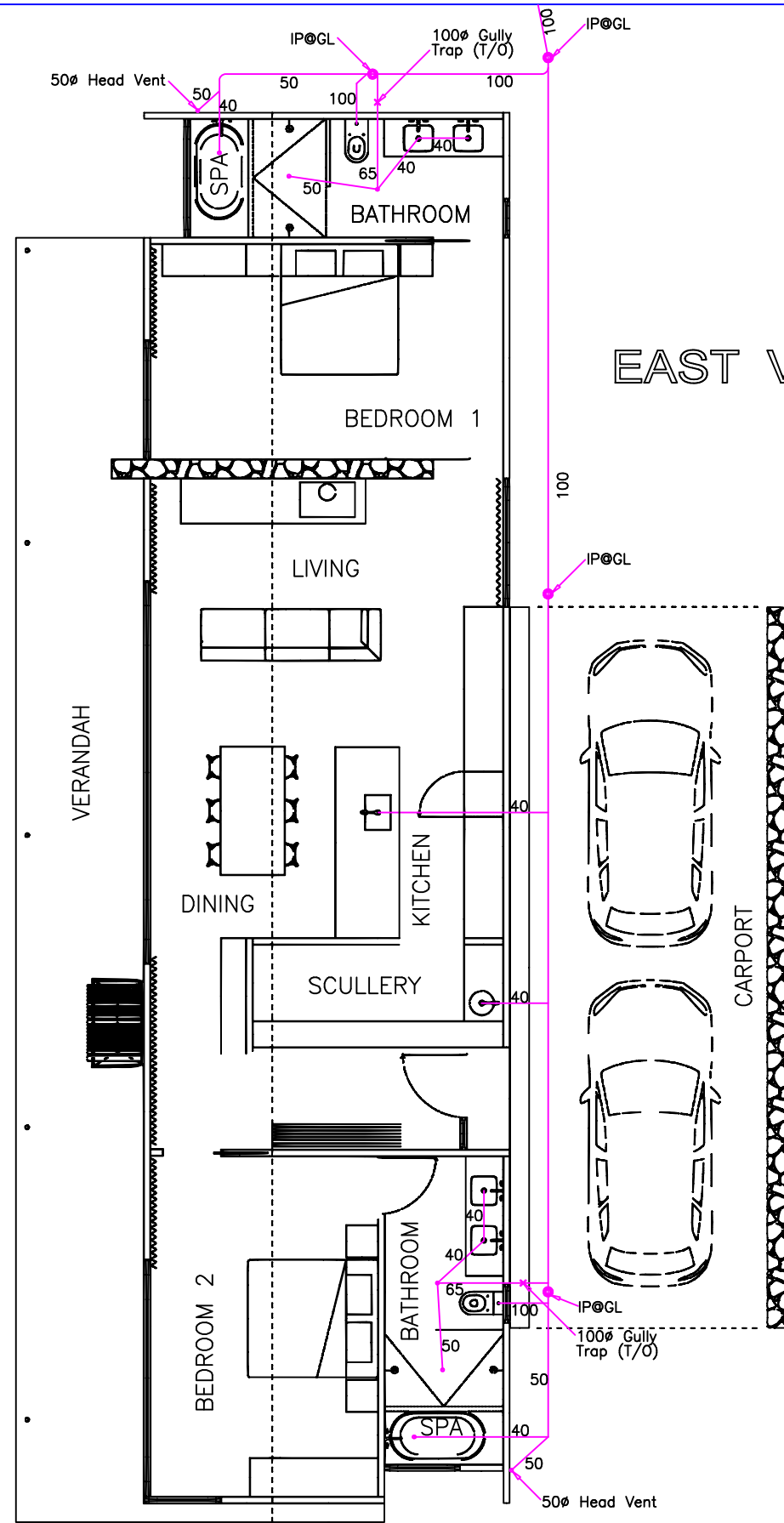
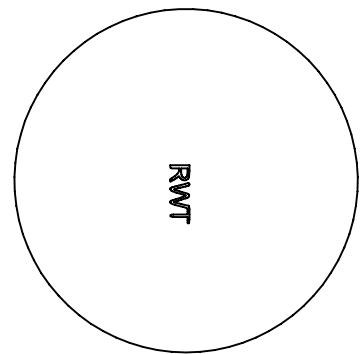
**Attachment 2**

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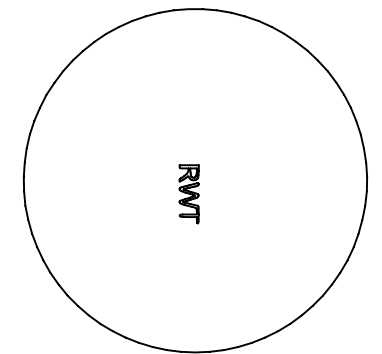
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WEST VILLA



EAST VILLA



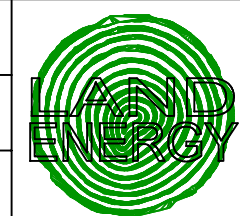
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NOTES:  
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 Set-out subject to site confirmation



DRAWING	12269.DET.1C	SHEET	1 of 1
ISSUED	12 April 2023	SCALE	1:100 @ A3
LEVELS	As shown (AHD)	CHECKED	PAB
CAD.FILE	Balhannah Villas Baseplan.dwg		

PROJECT	TOURIST ACCOMMODATION VILLAS – BALHANNAH ON-SITE WASTEWATER TREATMENT SYSTEMS
CLIENT	SUE BASTIAN & BRIAN WEST
TITLE	DETAILED PLUMBING LAYOUT SCHEMATIC PLAN WEST VILLA & EAST VILLA



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## LOAM OVER BROWN CLAY

**General Description:** *Dark brown loamy surface soil, paler coloured or bleached at base, overlying a brown, yellow and red mottled clay developing in deeply weathered fine grained metamorphic rock*

- Landform:** Slopes of undulating to rolling low hills in the Central and Northern Mt. Lofty Ranges
- Substrate:** Phyllites, metasilstones and low grade schists of the Saddleworth, Balhannah and Tapley Hill Formations
- Vegetation:** Red gum - blue gum woodland

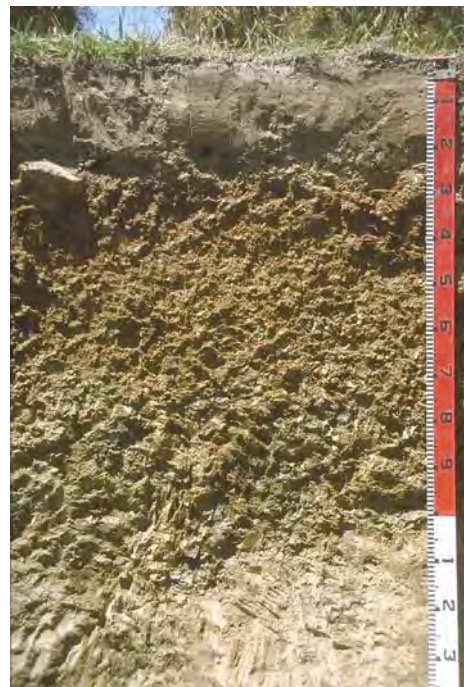


<b>Type Site:</b>	Site No.:	CH044	1:50,000 sheet:	6628-2 (Onkaparinga)
	Hundred:	Talunga	Easting:	306850
	Section:	6053	Northing:	6140750
	Sampling date:	14/01/93	Annual rainfall:	875 mm

Lower slope of an undulating low hill, 10% slope. Hard setting surface with no stone. Pasture.

### Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-20	Dark greyish brown massive loam with 10% quartz gravel. Clear to:
20-30	Pale brown massive fine sandy loam with 10% quartz, phyllite and ironstone gravel. Clear to:
30-40	Dark yellowish brown and red mottled heavy clay with coarse prismatic structure, breaking to polyhedral. Clear to:
40-65	Yellowish brown and dark brown heavy clay with coarse prismatic structure, breaking to polyhedral. Gradual to:
65-110	Greyish brown and yellowish brown heavy clay with slickensides. Gradual to:
110-150	Weathering phyllite of the Balhannah Formation.



**Classification:** Vertic, Eutrophic, Brown Kurosol; medium, slightly gravelly, loamy / clayey, deep



## Summary of Properties

<b>Drainage</b>	Moderately well drained. The soil may remain wet for a week or so, due to water perching on top of the clay subsoil.
<b>Fertility</b>	Inherent fertility is moderately high, as indicated by the exchangeable cation data. The lower figures for the surface layers reflect the lower clay contents and relatively low organic carbon levels. Acidification has reduced the soil's capacity to retain nutrient elements. Phosphorus, potassium and trace element levels are satisfactory, but calcium, magnesium and boron are deficient. Grass tetany in cattle, caused by magnesium - potassium imbalance, is likely.
<b>pH</b>	Strongly acidic at the surface, acidic with depth. Dolomitic lime is needed for pH correction.
<b>Rooting depth</b>	110 cm in pit, but there are few roots below 65 cm.
<b>Barriers to root growth</b>	
<b>Physical:</b>	The firm clay subsoil may present a physical barrier to root extension.
<b>Chemical:</b>	Acidity is the only apparent chemical barrier. Acidity reduces nitrogen fixing capacity, induces aluminium toxicity and causes nutrients to be lost by leaching.
<b>Water holding capacity</b>	150 mm in rootzone, but up to a third may be effectively unavailable due to poor root distribution.
<b>Seedling emergence</b>	Fair to good. Soil tends to seal over after rain if organic carbon levels fall too far.
<b>Workability</b>	Fair to good. Soil will shatter if worked too dry and puddle if worked too wet.
<b>Erosion Potential</b>	
<b>Water:</b>	Moderate (10% slope).
<b>Wind:</b>	Low.

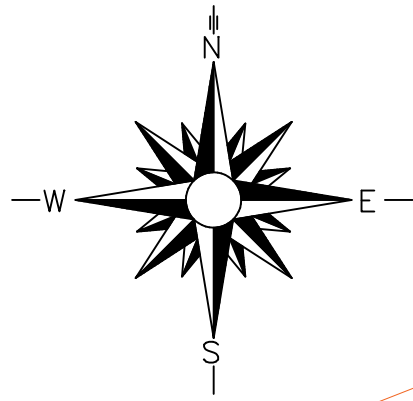
## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaCl <sub>2</sub>	CO <sub>3</sub> %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO <sub>4</sub> mg/kg	Boron mg/kg	Trace Elements mg/kg (EDTA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
											Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
Paddock	4.6	4.3	0	0.13	0.72	2.2	34	340	-	0.4	2.90	460	100	6.22	6.8	3.54	0.90	0.10	0.64	1.5
0-20	4.8	4.2	0	0.07	0.31	1.5	26	360	-	0.5	-	-	-	-	5.8	2.08	0.66	0.13	0.73	2.2
20-30	4.9	4.2	0	0.03	0.11	0.21	6	240	-	0.3	-	-	-	-	6.2	3.66	1.90	0.16	0.32	2.6
30-40	5.0	4.5	0	0.07	0.12	0.50	3	350	-	1.3	-	-	-	-	25.0	12.4	13.2	0.27	0.90	1.1
40-65	5.3	4.9	0	0.09	0.12	0.35	3	480	-	1.3	-	-	-	-	28.4	14.6	25.5	0.28	1.12	1.0
65-110	6.2	5.7	0	0.08	0.14	0.21	3	590	-	0.6	-	-	-	-	26.1	11.1	25.5	0.31	1.04	1.2

**Note:** Paddock sample bulked from 20 cores (0-10 cm) taken around the pit.

CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements.

ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.



Earthen Run-on Diversion  
Strip Drain & Bund  
Dimensions Subject to Survey

Air/Vac Valve

Earthen Run-off Diversion  
Strip Drain & Bund  
Dimensions Subject to Survey

Flush Valve  
Air/Vac Valve

1520 m<sup>2</sup> Irrigation Area  
40m x 38m  
Max. 10% Slope down to South

13mm Techline AS XR Purple  
1.6 L/h Emitters @ 0.5m Sp  
Total Flow = 28 L/m

Flushing Header 32 $\phi$

Flush Valve

6628-24830

Dual Action  
Air Valve

330.0  
HP

HDPE DN32 PN8 (Colour: Lilac)  
Irrigation Rising Main (210)  
Minimum Trench Cover 0.3 m

Attachment 7

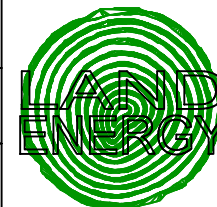
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NOTES:  
Natural Surface Levels from Survey  
All Pipework to WSAA Standards  
Set-out subject to site confirmation



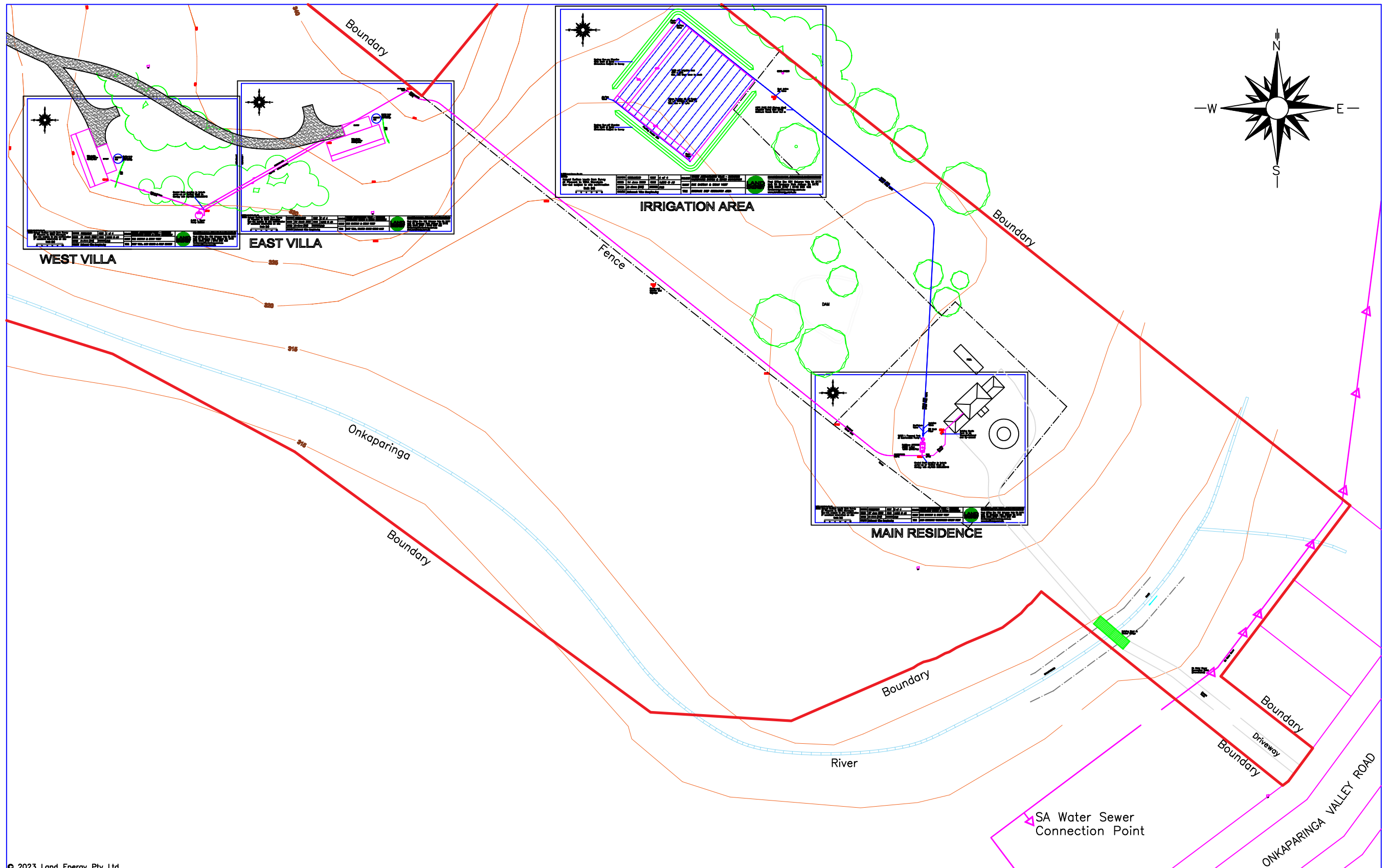
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ISSUED	14 June 2023	SCALE	1:250 @ A3
LEVELS	As shown (AHD)	CHECKED	PAB
CAD.FILE	Balhannah Villas Baseplan.dwg		

PROJECT	TOURIST ACCOMMODATION VILLAS – BALHANNAH WASTEWATER SYSTEM & SEWER CONNECTION
CLIENT	SUE BASTIAN & BRIAN WEST
TITLE	SURFACE DRIP IRRIGATION AREA



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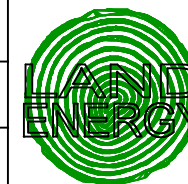
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**NOTES:**  
 LEVELS INTERPOLATED FROM CONTOURS  
 AND MUST BE CONFIRMED BY SITE SURVEY  
 Scale (m)



DRAWING	12269.LOC.4	SHEET	1 of 1
ISSUED	03 March 2023	SCALE	1:1500 @ A3
LEVELS	As shown (AHD)	CHECKED	PAB
CAD.FILE	Balhannah Villas Baseplan.dwg		

PROJECT	TOURIST ACCOMMODATION VILLAS – BALHANNAH WASTEWATER SYSTEM & SEWER CONNECTION
CLIENT	SUE BASTIAN & BRIAN WEST
TITLE	SYSTEM DESIGN SCHEMATIC LAYOUT – OVERALL DRAWING SHEETS & LOCATIONS



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# FujiClean ACE 3000

## SEWAGE TREATMENT SYSTEM

JAPANESE TECHNOLOGY ✓

MADE IN AUSTRALIA ✓

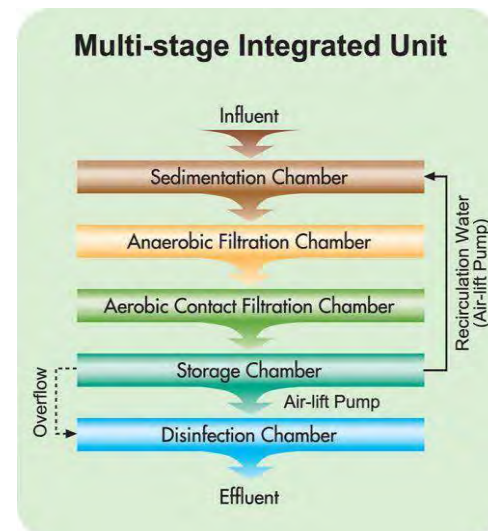
ADVANCED. ✓

COMPACT. ✓

EFFICIENT. ✓



Advanced Secondary  
Effluent Quality  
<10 Mg/L BOD<sub>5</sub>  
< 10 Mg/L Suspended solids  
3000 LPD  
20 EP @150 LPD



## Compact and Efficient

This Advanced, Compact, and Efficient unit has been specifically designed using leading Japanese engineering technologies to achieve maximum operational efficiency. The ACE3000 is a whole household treatment plant.

Due to its light weight and compact design allowing for 3000 L per 24 hours, the Fuji Clean ACE system is extremely easy to transport and install. Overall weight of 550 KG makes for an easier delivery and installation.

## Commercial Adaptability

The ACE system can easily be customised according to site requirements. The ACE systems can be installed easily at various types of sites (not only domestic) which are not connected to municipal sewage supply; including mining sites, caravan parks, resorts, remote islands, service stations, schools, tourist cabins, community housing and other similar projects producing up to 3000 LPD of influent.

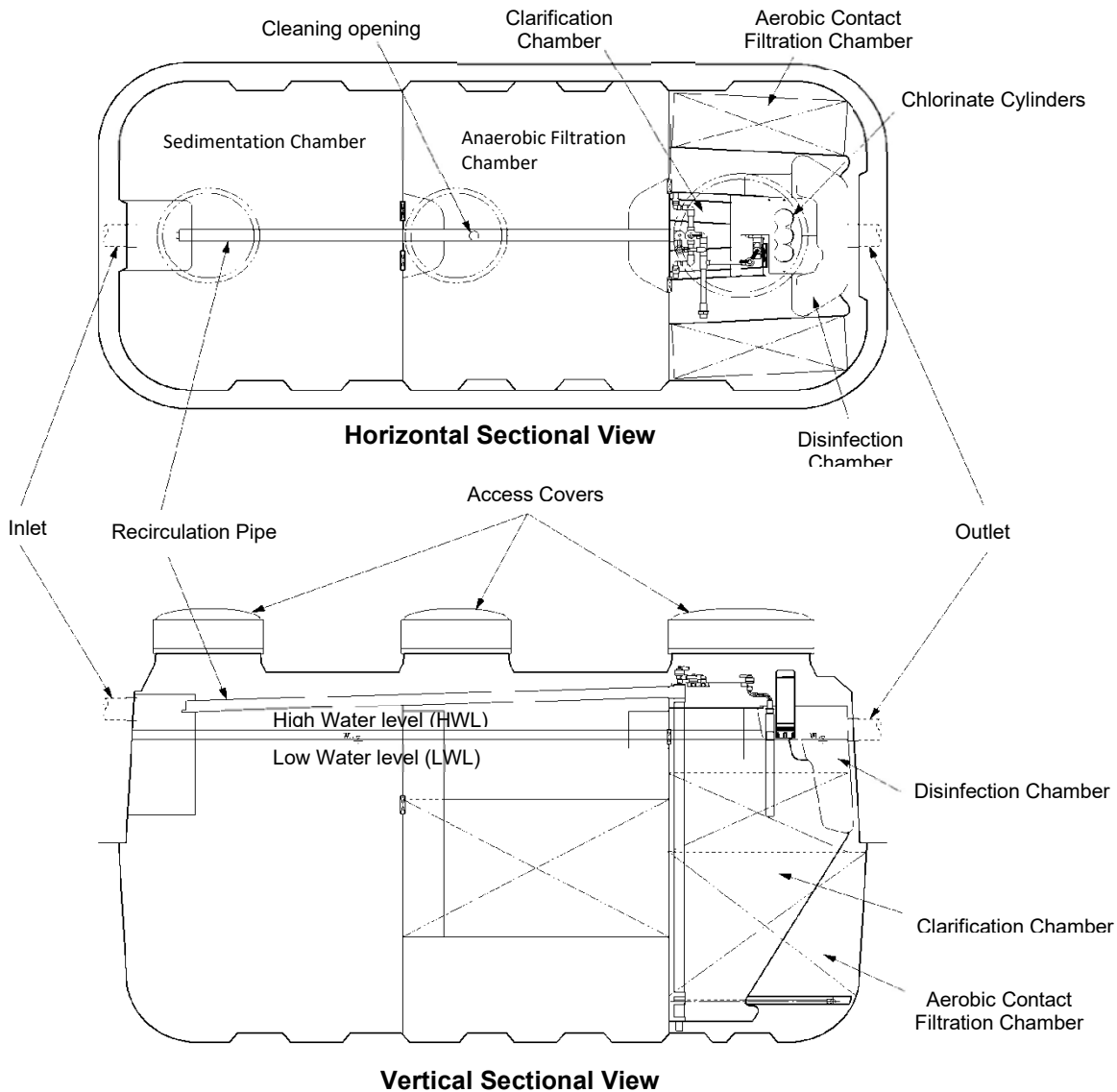
## Fuji Clean Australia PTY LTD

With over 60 years of experience, Fuji Clean is one of the world's leading manufacturers of high efficiency wastewater treatment systems with over 2 million systems (both domestic and commercial) installed around the world.

## SPECIFICATIONS ACE3000

Volume (L)		Dimensions (mm)	
Sedimentation Chamber	3,169	Max. Width	1,840
Anaerobic Filtration Chamber	3,177	Max. Length	3,880
Aerobic Contact Filtration Chamber	1,431	Max. Height	2,215
Clarification Chamber	703	Max. Height (with 150mmH risers)	2,365
Disinfection Chamber	44	Max. Height (with 300mmH risers)	2,515
Total Volume	8,524	Inlet Invert	500
Weight (kg)	550	Inlet Invert (with 150mmH /300mmH risers)	650 / 800
		Outlet Invert	600
		Outlet Invert (with 150mmH /300mmH risers)	750 / 900
		Dia. 100	100
		Dia. 100	100

Pump out chamber with emergency effluent storage required. Not shown here. 2000 ltrs.



### Fuji Clean Australia

With over 60 years of experience, Fuji Clean is one of the world's leading manufacturers of high efficiency wastewater treatment systems with over 2 million systems (both domestic and commercial) installed around the world.



# SOLAR AND POWER USAGE

## FujiClean ACE 3000 – Domestic / Commercial AWTS

The FujiClean ACE 3000 AWTS is 100% compatible with homes using a stand-alone solar power system. For the system to operate correctly it requires:

- A stable and continuous connection to a 10 amp 240V AC +/- 5% maximum and a frequency of 50Hz.
- A suitable inverter is to be used.

*NOTE: Must allow for the ACE3000 energy requirements.*

- The power supply to have sufficient capacity to run all components without the voltage supply dropping when the load is applied.
- A contingency plan if the house experiences long periods without power.

*NOTE: like any AWTS, prolonged periods without power will cause the bacteria to die off and result in system failure.*

A standard 20 person household uses an average of 2500 L to 3000 L per day (24 hrs)

**FujiSub 4520 submersible pump** with 20m head has a flowrate of 45L/min.

An average pump cycle for the FujiClean ACE 3000 is 20 minutes. Therefore with average loading, the FujiSub 4520 will activate and cycle 2-3 times per day for 20 minutes. Used for subsurface irrigation disposal. Averages may differ per household

**FujiSub 756 submersible pump** with 8m head has a flowrate of 25L/min.

An average pump cycle for the FujiClean ACE 3000 is 36 minutes. Therefore with average loading, the FujiSub 756 will activate and cycle 2-3 times per day. Used for surface irrigation disposal. Averages may differ per household

**MAC 200RII Air Blower** runs 24 hours/day and provides 200L of aeration per minute.

Electrical Component	Startup Amps	Run Wattage / Amps	Daily Usage max
MKII Treatment Monitor Unit	3 W	3 W	24 hours
MAC200 RII Air Blower	Less than 1 A	140 Watts   0.53 A	24 hours
FujiSub 756 Submersible Pump	Less than 3.0 amps	550 watts   2.1 A	2 hours
FujiSub 4520 Submersible Pump	Less than 5.5 amps instant	800 watts   3.2 A	1.2 hours
FujiSub 5025 Submersible Pump 50 LPM at a 25 mtr head	Less than 7.0 amps	1000 watts   4.0 A	1.0 hours

**NOTE: Only one type of submersible pump is required.** If you require any further information on the FujiClean ACE 3000 energy requirements please contact FujiClean Australia Head Office on [1300 733 619](tel:1300733619) or [info@fujiclean.com.au](mailto:info@fujiclean.com.au)



## Appendix D

### Suitable Plants for Recycled Water Irrigation

**Note:** This list is only intended to provide a selection of trees, shrubs and other plants which may be considered suitable for the land application area. Due to climatic and soil variations, it is essential that further investigations be made before finalising your plant choice to suit your particular locality and site conditions.

#### Trees

Botanical Name	Common Name	Approximate height in metres
<i>Agonis flexuosa</i>	Willow Myrtle	5-6
<i>Allocasuarina verticillata</i>	Drooping She Oak	3-5
<i>Banksia</i> spp.		3-10
<i>Callistemon salignus</i>	White Bottlebrush	3-6
<i>Callistemon viminalis</i>	Red Bottlebrush	3-6
<i>Casuarina cunninghamiana</i>	River She Oak	6-10
<i>Eucalyptus camaldulensis</i>	River Red Gum	15-20
<i>Eucalyptus cosmophylla</i>	Cup Gum	5-6
<i>Eucalyptus grandis</i>	Flooded Gum	10-20
<i>Eucalyptus robusta</i>	Swamp Mahogany	6-9
<i>Eucalyptus saligna</i>	Sydney Blue Gum	15-20
<i>Hymenosporum flavum</i>	Native Frangipani	3-6
<i>Melaleuca nesophila</i>	Western Tea Myrtle	2-4
<i>Melaleuca quinquenervia</i>	Broad Paperbark	5-7
<i>Syzygium paniculatum</i>	Bush Cherry	8-10
<i>Tristaniopsis laurina</i>	Kanuka	3-5

## Shrubs

Botanical Name	Common Name	Approximate height in metres
<i>Abelia grandiflora</i>	Abelia	2-3
<i>Acacia floribunda</i>	Gossamer Wattle	2-4
<i>Argyranthemum frutescens</i>	Marguerite Daisy	1
<i>Chamelaucium uncinatum</i>	Geraldton Wax	2-4
<i>Cyperus alternifolius</i>	Umbrella Grass	0.5-1
<i>Cyperus papyrus</i>	Papyrus	1-2
<i>Dryandra Formosa</i>		1-3
<i>Eremophila</i> spp.		1-2
<i>Grevillea</i> spp. (apart from <i>G. rosmarinifolia</i> )		1-3
<i>Hebe</i> spp.	Veronica	0.5-1
<i>Iris pseudacorus</i>	Yellow Flag Iris	0.5-1
<i>Melaleuca decussata</i>	Cross Leaved Honey Myrtle	1-2
<i>Phormium tenax</i>	New Zealand Flax	2-2.5
<i>Senna</i> spp. ( <i>S. artemisioides</i> )		1-3

## Perennials/Ground Cover

Botanical Name	Common Name	Approximate height in metres
<i>Aster novi-belgii</i>	Perennial Aster	0.5-1
<i>Canna</i>		1-2
<i>Chrysanthemum maximum</i>	Shasta Daisy	1
<i>Impatiens</i> spp.		0.4
<i>Salvia uliginosa</i>	Bog Salvia	0.4
<i>Viola hederacea</i> , <i>eminens</i> or <i>sieberana</i>		0.4



## Climbers

Botanical Name	Common Name	Approximate height in metres
Bougainvillea spp.		Variable
Clematis microphylla		Variable
Hardenbergia violacea	Purple Coral Pea	Variable
Hibbertia scandens	Snake Vine	Variable
Jasminum grandiflorum		Variable
Jasminum officinale	Common Jasmine	Variable
Jasminum polyanthum		Variable
Kennedia rubicunda	Dusky Coral Pea	Variable
Passiflora spp.	Passion Flower	Variable
Vitis coignetiae	Glory Vine	Variable

# Wastewater Irrigation Evaluation Tool



## Nitrogen balance calculation to demonstrate neutral or beneficial effect on water quality (NorBE)

### SITE ADDRESS

11 Onkaparinga Valley Road, Balhannah

### DA NUMBER

23008597

### NAME

Sue Bastian & Brian West (Applicant - Mr Adam Johnson)

### DATE

17/05/2023

### INPUT DATA

Wastewater daily flow	3,000	L/day
Type of development	Tourist accommodation only	<i>plus Dwelling!</i>
Assumed occupancy in days per year	255	days/yr <i>Flow-weighted Mean (See Development types Tab)</i>
Plant selection	Shrubs and some trees (fully managed)	
Type of onsite wastewater system	FujiClean Australia - ACE3000	
Effluent N Concentration	31	mg/L <i>Assumes 80 mg/L Total N in Influent (Spa ww Lower ?)</i>
Effluent N load per day	93	g/day
% N Loss to soil processes	10	%
Total mass N Loss to Soil	9	g/day
Remaining effluent N Load that needs to be taken up into plants	84	g/day or 21.34 kg/yr
Plant N uptake rate	150	kg/ha/yr <i>Shrubs &amp; some trees (fully managed)</i>
Proposed surface irrigation or sub-surface dispersal area	1520	m <sup>2</sup> 40 m x 38 m

### RESULTS

Irrigation/dispersal area required to achieve nitrogen balance (ie a neutral effect on water quality)

1423

m<sup>2</sup>

**NorBE Pass**

## On-site wastewater systems and nitrogen reduction levels

Influent Nitrogen Level (mg/L)

80

On-site Wastewater System	Nitrogen Reduction Level (%)	Nitrogen Level in Effluent mg/L	Information source
Simple septic tank (disposal of effluent within plant root zone)	10	72	
Pulsed septic tank (disposal of effluent within plant root zone)	30	56	
FujiClean Australia - ACE1200	75	20	Global Certification, Feb 2020
FujiClean Australia - ACE3000	61	31	Global Certification, Mar 2021
Suncoast Waste Water Management - Ozzi Kleen RP10A+	91	8	<a href="#">awts-014.pdf (nsw.gov.au)</a>
			<a href="#">awts026.pdf (nsw.gov.au)</a>
Taylex Australia Pty Ltd - Concrete ABS1500	11	71	<a href="https://ww2.health.wa.gov.au/Articles/A_E/Approved-Secondary-Treatment-Systems/">https://ww2.health.wa.gov.au/Articles/A_E/Approved-Secondary-Treatment-Systems/</a> <a href="https://www.health.nsw.gov.au/environment/domesticwastewater/accreditations/awts026.pdf">https://www.health.nsw.gov.au/environment/domesticwastewater/accreditations/awts026.pdf</a>
Taylex Australia Pty Ltd - Poly ABS1500	11	71	<a href="https://ww2.health.wa.gov.au/Articles/A_E/Approved-">https://ww2.health.wa.gov.au/Articles/A_E/Approved-</a>
Taylex Australia Pty Ltd - Concrete ABS4200	45	44	
Taylex Australia Pty Ltd - Concrete ABS5000	37	50	<a href="#">Certification Date: 23rd October 1977 (taylex.com.au)</a>

## Selected crops and nitrogen uptake amounts

Crop	N uptake (kg/ha/yr)	Estimated Irrigation Area Required (m <sup>2</sup> )
<b>Confidential until Draft Guidelines are Officially Released by the EPA</b>		
Clover (harvested)	180	1186
Grapes, table (prunings removed and fruit harvested)	80	2668
Lawn, bent grass (all clippings removed)	170	1256
Lawn, bermuda grass (all clippings removed)	280	762
Lawn, kikuyu (all clippings removed)	520	410
Lawn, non-specific - fully managed (all clippings removed)	240	889
Lawn, non-specific - regularly maintained grass (most clippings removed)	220	970
Lawn, non-specific - unmanaged (clippings not removed)	120	1779
Lemons (prunings removed and fruit harvested)	60	3557
Lucerne (harvested)	380	562
Lupins (harvested)	75	2846
Oats (harvested)	60	3557
Oranges (prunings removed and fruit harvested)	40	5336
Pasture, improved (harvested)	280	762
Pasture, perennial (harvested)	99	2156
Poplars	115	1856
Radiata pine	95	2247
River Sheoak	140	1525
Rye/clover (2:1) (harvested)	220	970
Ryegrass (harvested)	240	889
Shrubs and some trees (fully managed)	150	1423
Shrubs and some trees (unmanaged)	75	2846
Sorghum (harvested)	90	2372
Woodland (managed)	90	2372
<i>Acacia melanoxylon</i> (Blackwood)	32	6670

Dwelling/Workers' accommodation	365
Tourist accommodation only	200
Function centre	365
Restaurant	365
Cellar door	365

	<b>HLR</b>	Operation
	L/day	Days/Year
<b>Dwelling/Workers' accommodation</b>	900	365
Tourist accommodation only	1800	200
<b>Weighted Mean Days per Year for Combined Uses</b>	255	Days/Year



### Map Search

Select a Council Area

BALHANNAH

### Map Type

Aerial Photography

### Map Options

100% transparent

Auto Zoom

Start Over

### Help

[Learn about flooding](#)

[Terms and Conditions](#)

## Flood Studies

### Flood Studies in Map Area

More studies will be added as they become available

River Murray Flood Extent 1956 **i**

Upper Onkaparinga Floodplain Mapping 2010

1 in 10 Chance

1 in 50 Chance

1 in 100 Chance

1 in 200 Chance

1 in 500 Chance

Probable Maximum Flood

# PRODUCT CERTIFICATE OF REGISTRATION



## Global Certification Pty Ltd

**Number 649**

Product Performance Testing

**AS 1546.3:2017**

**Advanced Secondary 3000 L/day or 20EP Level with a reduction of 61.25% for Nitrogen and 6.49% for Phosphorus**

Issued to

**FujiClean Australia Pty Ltd**

**Unit 2, 176 Siganto Drive Helensvale Qld 4212**

**Certification Date: - 14 February 2021 Expiry Date: - 14 February 2026**

**Product Certified:**

Model	Disinfection	Average Results over the Test Period	Servicing Frequency	Discharge	Manufactured and assembled
FujiClean ACE 3000	Yes	TSS 4.98mg/l BOD5 1.29mg/l E coli 0.20 CFU/100ml Nitrogen 29.37mg/l Phosphorus 10.66mg/l	3 Monthly Service  2.3 yearly sedimentation pump out or as required	Pumped via disinfection/pump chamber with chlorine dispenser	Manufactured and Assembled at 59 Computer Road Yatala Qld 4207 or 37 Wells Road, Mordialloc, VIC 3195
The system took 1 week to meet the advanced secondary standard. No additives apart from Chlorine for disinfection was added to the system during testing. The tanks are certified to AS/NZS 1546.1:2008					

**NACE CODES: 3700**

*This Certificate of Conformance to the Product Certificate Scheme for "Domestic Wastewater Treatment Units (Septic Tanks) and Rainwater Tanks" remains the property of Global Certification Pty. Ltd. and is granted subject to the terms and conditions of the Contract Application, in respect of the Product certified on this page and the attached schedule to the Certification of Conformance, bearing the same number as this certificate.*

Date of Issue: 12 March 2021

**Bruce Smith Director**



[www.jas-anz.com.au/register](http://www.jas-anz.com.au/register)

Signed for and on behalf of Global Certification Pty Ltd  
PO Box 953 Belconnen ACT 2616

© Global Certification Pty Ltd. GC0050B R5 January 2021

Attachment 13

# Stormwater Calculations







## Report for

### Project Details

Project Name	Balhannah Tourist Villas		
User Email			
Web files link			
Site Area (m2)	1000	Project ID	423
Planning number	23008597		
Development type	Mixed use development		
Existing site details	Residential >750m2 per dwelling		
Street address	11 Onkaparinga Valley Rd, Balhannah SA 5242, Australia		

### Results

 VOLUME	 FLOW	 QUALITY	 EFFICIENCY
Objective: Harvest or infiltrate stormwater	Objective: Control peak discharge flows	Objective: Improve stormwater runoff water quality	Objective: Increase drought resilience
Target: No more than a 10% increase in runoff volume	Target less than or equal to zero. If greater than zero this is the additional Site Storage Requirement (SSR) volume required	Target: Achieve a score of 100 or more	Target: Achieve greater than 25% potable water use reduction
<b>VOLUME RESULT</b>  <b>-38.1</b> % change in annual average volume	<b>FLOW RESULT</b>  <b>-11.1</b> m <sup>3</sup> of additional site storage required	<b>QUALITY RESULT</b>  <b>138</b> Pollution reduction score (out of 100)	<b>EFFICIENCY RESULT</b>  <b>47.6</b> % water saving

**VOLUME PASSES**

**FLOW PASSES**

**QUALITY PASSES**

**EFFICIENCY PASSES**

**This project meets all of the policy objectives**



## Design Criteria

The development must be designed and constructed in accordance with the following:

### Stormwater management measures selected are

This includes all impervious areas in the site connected to Council or Stormwater Authority drains. This excludes pervious areas like pervious paving, garden, gravel and lawn areas)

- 192.0m<sup>2</sup> of Roof NOT connected to tank called 'Main Dwelling' draining to 100m<sup>2</sup> of Grass Buffer Strip
- Raintank Volume = 22500 litres connected to 218m<sup>2</sup> of roof, additional detention tank volume included = litres
- Raintank Volume = 22500 litres connected to 218m<sup>2</sup> of roof, additional detention tank volume included = litres

## Conditions of approval

### Rainwater Tanks

Total rainwater retention tank volume (L)	45000	
Area of roof connected to rainwater tank (plumbed to household) (m <sup>2</sup> )	436.0	
Total rainwater detention tank volume (L)	0.00	
Rainwater tanks connected to	Toilet Laundry Irrigation Hot Water	
Other rainwater tank end uses (L/day)	0	Irrigated Garden Area (m <sup>2</sup> )
Additional* Site Storage (m <sup>3</sup> )		*Site storage added adjacent to the legal point of discharge for peak flow detention or volume infiltration
Recycled water source		
<b>Water tank reliability %</b>	62.7	
<b>Rainwater tank overflow %</b>	19.9	

### Water Efficiency Specifications

Basin WELS star rating	> 4 Star WELS rating
Toilet WELS rating	> 4 Star WELS rating
Bath WELS star rating	Extra Large Bath or Spa
Washing Machine WELS star rating	> 4 Star WELS rating
Kitchen Taps WELS rating	> 4 Star WELS rating
Urinal WELS rating	Not Applicable
Shower WELS star rating	3 Star WELS (> 6.0 but <= 7.5)
Dishwasher WELS star rating	> 4 Star WELS rating

# Project Design Specifications

## Building Spaces

- Individual dwellings - BCA Class 1a of 152m<sup>2</sup> with an average occupancy of 3.0 people
- Individual guest or aged accommodation units - BCA Class 1b of 123m<sup>2</sup> with an average occupancy of 4.1 people
- Individual guest or aged accommodation units - BCA Class 1b of 123m<sup>2</sup> with an average occupancy of 4.1 people

Estimated Total Building Occupancy	11.2
------------------------------------	------

## Stormwater Quality Calculations

Rainwater Tank Runoff reduction (%)	80.1
Rainwater Tank(s) Total Nitrogen (TN) reduction	776.1
Total Impervious Area (m <sup>2</sup> )	192.0, 218.0, 218.0
Total Nitrogen (TN) % reduction (g/yr)	62.1
Water Quality Score (%)	138
Rainwater Used (kL)	238.6
Total demand (L/day)	764.00
Roof Runoff (kL)	298.7
Rainwater Tank Overflow (kL)	59.4

## Peak Flow Storage Requirement Calculations

FLOW reduction strategy	Volume retention and/or Infiltration
Catchment strategy used	On Site Retention (OSR) of volume to pre-development levels - Regime-in-balance

## Site Storage Calculations

Base case (pre-development) fraction impervious (ratio)	0.40
Base case runoff coefficient	0.302
Post development detention requirement (Site Storage Requirement)	10% AEP (~1 in 10 ARI) - default residential
Post development fraction impervious (ratio)	0.63
Post development runoff coefficient	0.531
Pre-development FLOW volume (m <sup>3</sup> )	5.0
Post-development FLOW volume (m <sup>3</sup> )	8.8

FLOW Volume storage required for 'yield minimum' (m <sup>3</sup> )	
FLOW volume storage required for 'regime in balance' (m <sup>3</sup> )	3.8
On Site Retention (m <sup>3</sup> )	3.8
Permissible Site Discharge (PSD) (L/sec)	
Critical Storm Duration - the Catchment time of concentration - Tc(catchment) in minutes	30
Rainfall Depth (mm) for Critical Storm Duration - Tc (Catchment)	16.48
Rainfall intensity - i at Tc(catchment) (mm/h)	33.0
Site time of Concentration (min) - Tc(site)	10.0
Rainfall Depth (mm) for tc(site) - (IFD at Site Time of Concentration)	10.26
Rainfall intensity - i at tc(site) (mm/h)	61.56

## Detention Calculator - Site Storage Requirement (SSR) - Uses rational method (Boyd's Equation)

Please note that this section is not applicable if Volume retention and/or Infiltration strategy is used

Storm Duration (mins)	Rainfall Depth (mm)	Peak Post Development flow (L/s)	Runoff Volume (m <sup>3</sup> )	Stored Volume (m <sup>3</sup> )
5				
10				
15				
30				
60				
120				

### About In-Site Water

This report is generated by user inputs from the toolkit at In-Site Water. In-Site water is an online Integrated Water Management tool designed for use on smaller sites (less than 2 hectares) in Australia that need quick and accurate stormwater engineering answers. In-Site water is simple to use but provides robust stormwater design and engineering answers.

For enquiries, contact Water Sensitive SA [www.watersensitivesa.com](http://www.watersensitivesa.com)

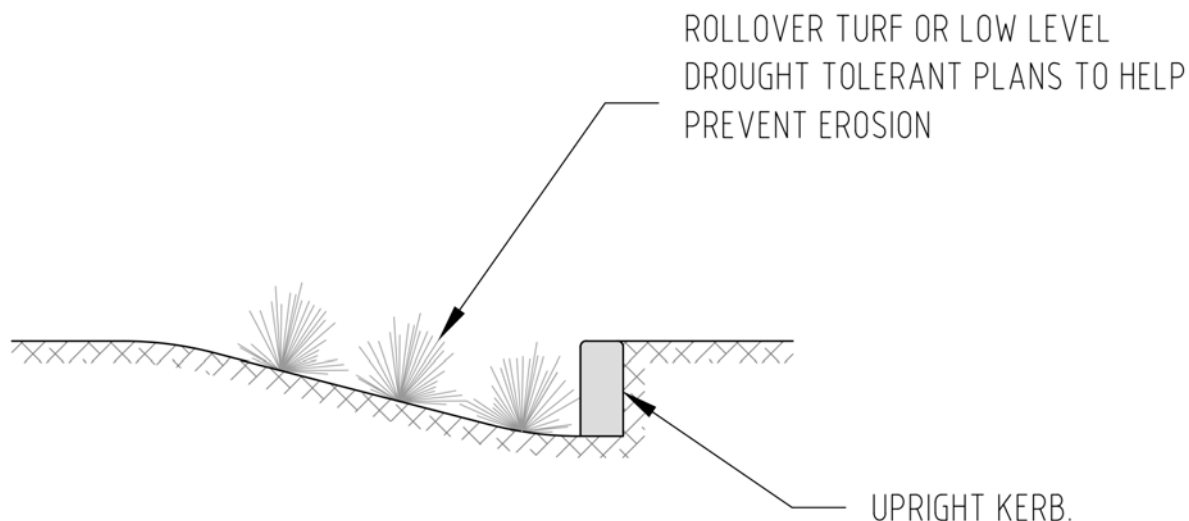
### Disclaimer

This guide is of a general nature only. Advice from a suitably qualified professional should be sought for your particular circumstances. Depending on each unique situation, there may be occasions where compliance is not achieved. The following dot points are outside the scope of this report, however it is critical that all designers consider the following:

- Manage expectations and risks around occasional surface water and ponding.
- Ensure that uncontrolled stormwater does not flow over property boundaries or otherwise cause a nuisance.
- Plan for major flood pathways – locate away from, adapt (raise floors above predicted flood levels) and defend buildings against potential major flooding.
- Plan to reduce annual average damages and safety risks.
- Take into account local conditions such as slope, topography and soils (type, reactivity, permeability, water table level, salinity, dispersiveness, acid sulphate soils, etc.).
- Ensure that soil moisture and building clearance is considered in areas of reactive clays or where varying soil moisture levels could damage buildings, infrastructure or other constructions.
- For steeper sites, ensure the design includes geotechnical considerations such as slope stability with varying soil saturation levels.
- Compliance with other Australian Standards, laws, guidelines, regulations and Council requirements.

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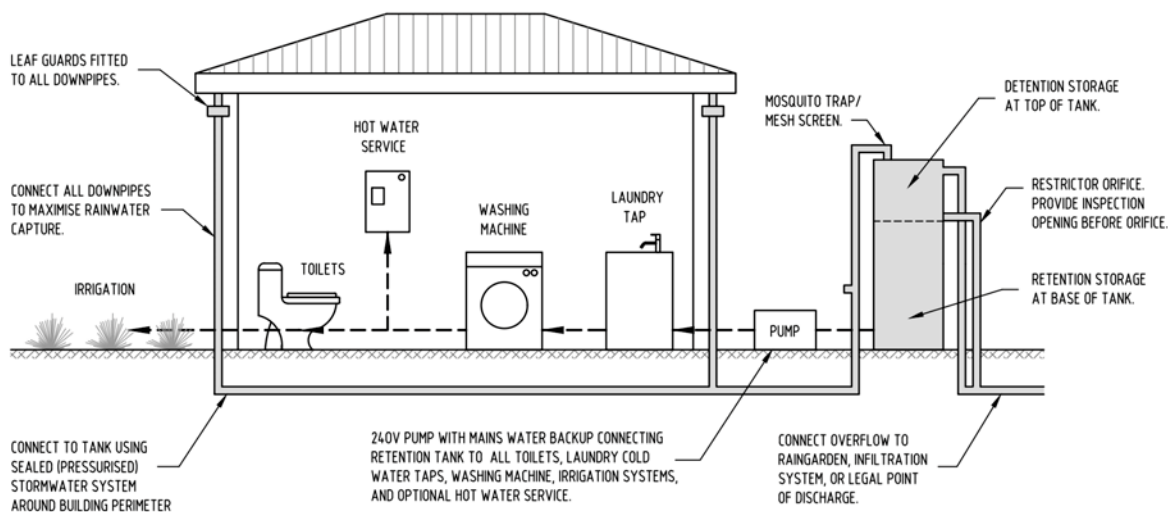
Example details for this project (if applicable). Please see the *InSite Guide* for more details:



## VEGETATED BUFFER STRIP

N.T.S.

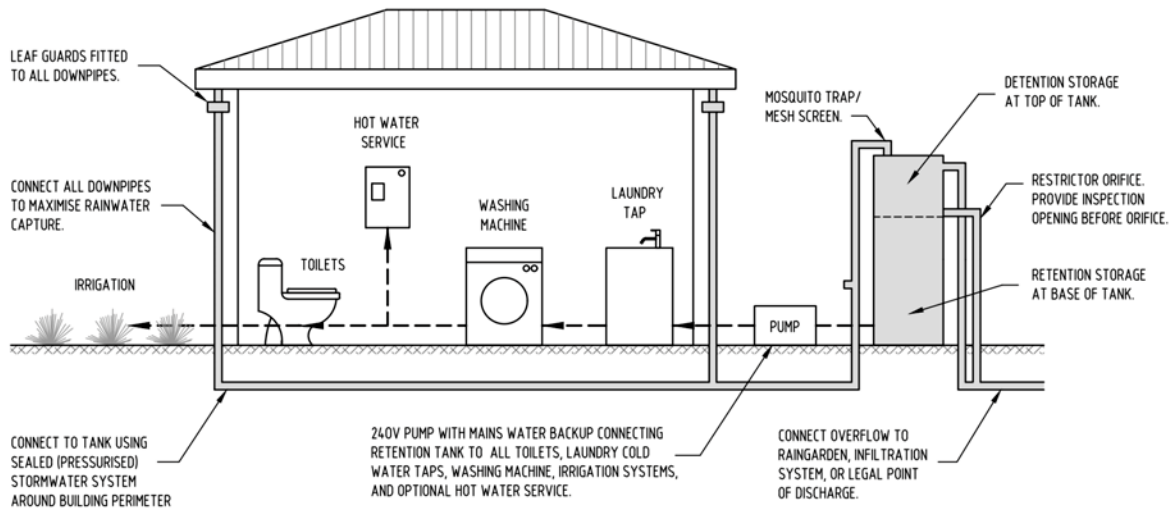
*Above: Main Dwelling treatment*



### RETENTION TANK RETICULATION DETAIL

N.T.S.  
 NOTE: THE DESIGN AND INSTALLATION OF ALL STORMWATER SYSTEMS SHALL COMPLY WITH AS/NZS 3500.3:2018 "STORMWATER DRAINAGE".

*Above: West Villa treatment*



**RETENTION TANK RETICULATION DETAIL**

N.T.S.

NOTE: THE DESIGN AND INSTALLATION OF ALL STORMWATER SYSTEMS SHALL COMPLY WITH AS/NZS 3500.3:2018 "STORMWATER DRAINAGE".

*Above: East Villa treatment*



## COUNCIL ASSESSMENT PANEL

### NOTICE OF MEETING

---

To: **Presiding Member:** Geoff Parsons

#### **Members**

Ross Bateup  
David Brown  
Paul Mickan  
John Kemp

Notice is hereby given that the next meeting of the Council Assessment Panel will be held on:

**Wednesday 11 August 2021**  
**The Stirling Conference Room, 63 Mt Barker Road, Stirling AND**  
**Zoom Virtual Meeting Room**  
**at 6.00pm**

Meetings of the Council are open to the public and interested members of the community are encouraged to attend via Zoom.

Please refer to Council's website for the link to join this meeting.

A handwritten signature in black ink that reads 'Deryn Atkinson'.

**Deryn Atkinson**  
**Assessment Manager**  
**4 August 2021**



## **COUNCIL ASSESSMENT PANEL**

### **AGENDA FOR MEETING**

**Wednesday 11 August 2021**

**6:00pm**

**The Stirling Conference Room, 63 Mt Barker Road, Stirling AND  
Zoom Virtual Meeting Room**

### **ORDER OF BUSINESS**

**1. COMMENCEMENT**

**2. OPENING STATEMENT**

“Council acknowledges that we meet on the traditional lands and waters of the Peramangk and Kurna people. We pay our respects to Elders past, present and emerging as the Custodians of this ancient and beautiful land. Together we will care for this country for the generations to come.”

**3. APOLOGIES/LEAVE OF ABSENCE**

3.1 Apologies

3.2 Leave of Absence

**4. PREVIOUS MINUTES**

Confirmation of the Minutes of the previous meeting held on Wednesday 14 July 2021

**5. PRESIDING MEMBER’S REPORT**

**6. DECLARATION OF INTEREST BY MEMBERS OF THE PANEL**

**7. MATTERS LYING ON THE TABLE/MATTERS DEFERRED**

7.1 Matters Lying on the Table  
Nil

- 7.2 Matters Deferred  
Nil

## 8. DEVELOPMENT ASSESSMENT APPLICATIONS – DEVELOPMENT ACT

- 8.1 **Development Application 20/366/473 by Cartwheel Resources Pty Ltd for change of use of detached dwelling to tourist accommodation facility with associated functions (maximum 12 per year for a maximum of 40 persons) together with alterations & additions to the building, construction of a new detached dwelling, in-ground swimming pool, jetty, demolition of ground mounted solar array, alterations and additions to Local Heritage Place (revegetating Silver Lake), demolition of farm building and construction of 2 outbuildings, associated car parking, landscaping and earthworks (non-complying) at 118 Silver Lake Road, Mylor – Sarah Davenport**

- 8.1.1 Representations

Name of Representor	Address of Representor	Nominated Speaker
Phillip Allen	137 Silver Lake Road, Mylor	Personally
Colleen Heppner	137 Silver Lake Road, Mylor	Personally
Ian Hobbs	6 Pillinda Lane, Mylor	Personally
Frauke Hobbs	6 Pillinda Lane, Mylor	Personally
Poppy Kentish	99 Silver Lake Road, Mylor	Personally
Alexandra Kentish	99 Silver Lake Road, Mylor	Personally

The applicant's representative, Ian Hannaford, may be in attendance.

- 8.1.2 Decision of the Panel

- 8.2 **Development Application 19/1064/473 by Susan Bastian and Brian West for tourist accommodation, comprised of two separate self-contained villas, water storage tanks (2 x 22,000L), associated landscaping and earthworks (non-complying) at 11 Onkaparinga Valley Road, Balhannah – Damon Huntley**

- 8.2.1 Representations

Name of Representor	Address of Representor	Nominated Speaker
Andrew & Kate Cowling	38 Spoehr Road, Balhannah	TBA

The applicants and their representative, Graham Burns (MasterPlan), will be in attendance.

- 8.2.2 Decision of the Panel



**ADELAIDE HILLS COUNCIL  
MINUTES OF SPECIAL COUNCIL ASSESSMENT PANEL MEETING  
WEDNESDAY 11 AUGUST 2021  
63 MOUNT BARKER ROAD, STIRLING  
AND  
ZOOM VIRTUAL MEETING ROOM**

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[www.environment.sa.gov.au/Conservation/Native\\_Vegetation/  
Managing\\_native\\_vegetation](http://www.environment.sa.gov.au/Conservation/Native_Vegetation/Managing_native_vegetation)

Any queries regarding the clearance of native vegetation should be directed to the Native Vegetation Council Secretariat on 8303 9777. This must be sought prior to Full Development Approval being granted by Council.

- 8.2 **Development Application 19/1064/473 by Susan Bastian and Brian West for tourist accommodation, comprised of two separate self-contained villas, water storage tanks (2 x 22,000L), associated landscaping and earthworks (non-complying) at 11 Onkaparinga Valley Road, Balhannah**

8.2.1 **Representations**

Name of Representor	Address of Representor	Nominated Speaker
Andrew & Kate Cowling	38 Spoehr Road Balhannah	Michael Grant

The applicants' representative, Graham Burns (MasterPlan), addressed the Panel.

8.2.2 **Decision of Panel**

**The following was adopted by consensus of all members (41)**

The Council Assessment Panel considers that the proposal is not seriously at variance with the relevant provisions of the Adelaide Hills Council Development Plan, and seeks the CONCURRENCE of the State Commission Assessment Panel to GRANT Development Plan Consent to Development Application 19/1064/473 by Susan Bastian & Brian West for tourist accommodation, comprised of two separate self-contained villas, water storage tanks (2 x 22,000L), associated landscaping & earthworks (non-complying) at 11 Onkaparinga Valley Road Balhannah subject to the following conditions:

(1) **Development In Accordance With The Plans**

The development herein approved shall be undertaken in accordance with the following plans, details and written submissions accompanying the application, unless varied by a separate condition:

- Amended State of Effect prepared by Graham Burns of MasterPlan pp 1-13 dated 25 May 2021 (received by Council dated 25 May 2021)
- Amended Site Plan prepared by MasterPlan dated Dec 2019 (received by Council dated 25 May 2021)

**ADELAIDE HILLS COUNCIL  
MINUTES OF SPECIAL COUNCIL ASSESSMENT PANEL MEETING  
WEDNESDAY 11 AUGUST 2021  
63 MOUNT BARKER ROAD, STIRLING  
AND  
ZOOM VIRTUAL MEETING ROOM**

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- Amended Enlargement Plan prepared by MasterPlan dated March 2020 (received by Council dated 25 May 2021)
- Amended Elevations (Tourist Accommodation Villas) (received by Council dated 25 May 2021)
- Amended Floor Plan (Tourist Accommodation Villas) (received by Council dated 25 May 2021)
- Amended System Design Schematic Layout - Overall Drawing Sheets Plan & Locations prepared by Land Energy Drawing No. 12269.LOC.1 Sheet 1 of 1 dated 17 April 2021 (received by Council dated 25 May 2021)
- Amended West Villa, Main Drains & Pump Station Plan prepared by Land Energy Drawing No. 12269.LAY.1C Sheet 1 of 4 dated 30 April 2021 (received by Council dated 25 May 2021)
- Amended East Villa, Pumped Sewer Rising Main Plan prepared by Land Energy Drawing No. 12269.LAY.1C Sheet 2 of 4 dated 30 April 2021 (received by Council dated 25 May 2021)
- Amended Main Residence Wastewater Inflow Point Plan prepared by Land Energy Drawing No. 12269.LAY.1C Sheet 3 of 4 dated 30 April 2021 (received by Council dated 25 May 2021)
- Amended Bridge Crossing & Sewer Connection Plan prepared by Land Energy Drawing No. 12269.LAY.1C Sheet 4 of 4 dated 30 April 2021 (received by Council dated 25 May 2021)
- Amended Detailed Plumbing Layout Plans West Villa & East Villa prepared by Land Energy Drawing No. 12269.DET.1B Sheet 1 of 1 dated 07 September 2020 (received by Council dated 25 May 2021)
- Amended Entrance Enlargement Plan prepared by MasterPlan dated March 2021 (received by Council dated 30 March 2021)
- E-mail written by Graham Burns of MasterPlan relating to proposed number of days for accommodation booking dated 23 July 2021 (received by Council dated 23 July 2021).

**(2) External Materials and Finishes**

All external materials and finishes shall be of subdued colours which blend with the natural features of the landscape and be of a low-light reflective nature.

**NOTE:** Browns, greys, greens and beige are suitable and galvanised iron and zincalume are not suitable.

**ADELAIDE HILLS COUNCIL**  
**MINUTES OF SPECIAL COUNCIL ASSESSMENT PANEL MEETING**  
**WEDNESDAY 11 AUGUST 2021**  
**63 MOUNT BARKER ROAD, STIRLING**  
**AND**  
**ZOOM VIRTUAL MEETING ROOM**

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- (3) **Gravel Car Parking Designed In Accordance With Australian Standard AS 2890.1:2004**  
All car parking spaces, driveways and manoeuvring areas shall be designed, constructed, and line-marked in accordance with Australian Standard AS 2890.1:2004. Line marking and directional arrows shall be clearly visible and maintained in good condition at all times. Driveways, vehicle manoeuvring and parking areas shall be constructed of compacted gravel prior to occupation and maintained in good condition at all times to the reasonable satisfaction of the Council.
- (4) **Car Parking Directional Signage**  
Directional signs indicating the location of car parking spaces shall be provided on the subject land and maintained in a clear and legible condition at all times.
- (5) **Tourist Accommodation to be Connected to SA Water Sewer Network**  
Prior to the issue of a certificate of occupancy, the two accommodation villas must be connected to SA Water network in accordance with the wastewater management system and sewer connection plans prepared by Land Energy Pty Ltd referenced in Condition 1.
- (6) **Soil Erosion Control**  
Prior to construction of the approved development straw bales (or other soil erosion control methods as approved by Council) shall be placed and secured below areas of excavation and fill to prevent soil moving off the site during periods of rainfall.
- (7) **Timeframe For Landscaping To Be Planted**  
Landscaping detailed in Enlargement Plan (prepared by Masterplan dated March 2020) shall be planted in the planting season following occupation and maintained in good health and condition at all times. Any such vegetation shall be replaced in the next planting season if and when it dies or becomes seriously diseased.
- (8) **CFS Access Requirements**  
Minister's Code 2009 "Undertaking development in Bushfire Protection Areas" (as amended October 2012), Part 2.3.3.1 describes the mandatory provision that 'Private' roads and driveways to buildings shall provide safe and convenient access/egress for large bushfire fighting vehicles, where the furthest point to the building from the nearest public road is more than 30 metres:
- Access to the building sites shall be of all-weather construction, with a minimum formed road surface width of 3 metres and must allow forward entry and exit for large fire-fighting vehicles.

**ADELAIDE HILLS COUNCIL  
MINUTES OF SPECIAL COUNCIL ASSESSMENT PANEL MEETING  
WEDNESDAY 11 AUGUST 2021  
63 MOUNT BARKER ROAD, STIRLING  
AND  
ZOOM VIRTUAL MEETING ROOM**

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- The all-weather road shall allow fire-fighting vehicles to safely enter and exit the allotment in a forward direction by incorporating either:
  - i. A loop road around the building, OR
  - ii. A turning area with a minimum radius of 12.5 metres, OR
  - iii. A 'T' or 'Y' shaped turning area with a minimum formed length of 11 metres and minimum internal radii of 9.5 metres.
- Private access shall have minimum internal radii of 9.5 metres on all bends.
- Vegetation overhanging the access road shall be pruned to achieve a minimum vehicular clearance of not less than 4 metres in width and a vertical height clearance of 4 metres.
- Vegetation to be established along the access road shall be carefully selected and designed in accordance with the following:
  - i. No Understorey vegetation shall be established within 3 metres either side of the access road (understorey is defined as plants and bushes up to 2 metres in height);
  - ii. Grasses shall be reduced to a maximum height of 10cm for a distance of 3 metres (or to the property boundary, whichever comes first); and
  - iii. Mature trees with a single stem habit, are permitted within this fuel reduced zone, providing they are maintained to achieve a minimum vehicular clearance of not less than 4 metres in width and a vertical height clearance of 4 metres.

**(9) CFS Water Supply**

Minister's Code 2009 "Undertaking development in Bushfire Protection Areas" (as amended October 2012), Part 2.3.4.1 prescribes the mandatory provision of a dedicated and accessible water supply to be made available at all times for fire-fighting.

Minister's Specification SA78 provides the technical details of the dedicated water supply for bushfire fighting for the bushfire zone. The dedicated bushfire fighting water supply shall also incorporate the installation of a pumping system, pipe-work and fire-fighting hose(s) in accordance with Minister's Specification SA78:

- A minimum supply of 22,000 litres of water for each building shall be available at all times for bushfire fighting purposes.
- The minimum requirement of 22,000 litres may be combined with domestic use, providing the outlet for domestic use is located above the 22,000 litres of dedicated fire water supply in order for it to remain as a dedicated supply.

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- The bushfire fighting water supply shall be clearly identified and fitted with an outlet of at least 50mm diameter terminating with a compliant SA CFS fire service adapter, which shall be accessible to bushfire fighting vehicles at all times.
- The water storage facility (and any support structure) shall be constructed of noncombustible material.
- The dedicated fire-fighting water supply shall be pressurised by a pump that has –
  - i. A minimum inlet diameter of 38mm, AND
  - ii. Is powered by a petrol or diesel engine with a power rating of at least 3.7kW (5hp), OR
  - iii. A pumping system that operates independently of mains electricity and is capable of pressurising the water for fire-fighting purposes.
- The dedicated fire-fighting water supply pump shall be located at or adjacent to the dwelling to ensure occupants safety when operating the pump during a bushfire. An 'Operations Instruction Procedure' shall be located with the pump control panel.
- The fire-fighting pump and any flexible connections to the water supply shall be protected by a non-combustible cover that allows adequate air ventilation for efficient pump operation.
- All bushfire fighting water pipes and connections between the water storage facility and a pump shall be no smaller in diameter than the diameter of the pump inlet.
- All non-metal water supply pipes for bushfire fighting purposes (other than flexible connections and hoses for fire-fighting) shall be buried below ground to a minimum depth of 300mm with no non-metal parts above ground level.
- A fire-fighting hose (or hoses) shall be located so that all parts of the building are within reach of the nozzle end of the hose and if more than one hose is required they should be positioned to provide maximum coverage of the building and surrounds (i.e. at opposite ends of the dwelling).
- All fire-fighting hoses shall be capable of withstanding the pressures of the supplied water.
- All fire-fighting hoses shall be of reinforced construction manufactured in accordance with AS 2620 or AS 1221.
- All fire-fighting hoses shall have a minimum nominal internal diameter of 18mm and a maximum length of 36 metres.
- All fire-fighting hoses shall have an adjustable metal nozzle, or an adjustable PVC nozzle manufactured in accordance with AS 1221.
- All fire-fighting hoses shall be readily available at all times.

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- (10) **CFS Access To Dedicated Water Supply**  
Minister's Code 2009 "Undertaking development in Bushfire Protection Areas" (as amended October 2012), Part 2.3.4.1 requires a dedicated and accessible water supply to be made available at all times for fire-fighting:
- The water supply outlet shall be easily accessible and clearly identifiable from the access way.
  - The dedicated water supply and its location should be identified with suitable signage (i.e. blue sign with white lettering "FIRE WATER").
  - Access to the dedicated water supply shall be of all-weather construction, with a minimum formed road surface width of 3 metres.
  - Provision shall be made adjacent to the water supply for a flat hardstand area (capable of supporting fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes) that is a distance equal to or less than 6 metres from the water supply outlet.
  - SA CFS appliance inlet is rear mounted; therefore the outlet/water storage shall be positioned so that the SA CFS appliance can easily connect to it rear facing.
- (11) **CFS Vegetation / Landscaping**  
Minister's Code 2009 "Undertaking development in Bushfire Protection Areas" (as amended October 2012), Part 2.3.5 mandates that landscaping shall include Bushfire Protection features that will prevent or inhibit the spread of bushfire and minimise the risk to life and/or damage to buildings and property. A vegetation management zone (VMZ) shall be established and maintained within 20 metres of the buildings (or to the property boundaries – whichever comes first) as follows:
- i. The number of trees and understorey plants existing and to be established within the VMZ shall be maintained such that when considered overall a maximum coverage of 30% is attained, and so that the leaf area of shrubs is not continuous. Careful selection of the vegetation will permit the 'clumping' of shrubs where desirable, for diversity, and privacy and yet achieve the 'overall maximum coverage of 30%'.
  - ii. Reduction of vegetation shall be in accordance with SA Native Vegetation Act 1991 and SA Native Vegetation Regulations 2017.
  - iii. Trees and shrubs shall not be planted closer to the building(s) than the distance equivalent to their mature height.
  - iv. Trees and shrubs must not overhang the roofline of the building, touch walls, windows or other elements of the buildings.
  - v. Shrubs must not be planted under trees or must be separated by at least 1.5 times their mature height from the trees' lowest branches.
  - vi. Grasses within the zone shall be reduced to a maximum height of 10cm during the Fire Danger Season.

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- vii. No understorey vegetation shall be established within 1 metre of the buildings (understorey is defined as plants and bushes up to 2 metres in height).
- viii. Flammable objects such as plants, mulches and fences must not be located adjacent to vulnerable parts of the buildings such as windows, decks and eaves.
- ix. The VMZ shall be maintained to be free of accumulated dead vegetation.

**(12) CFS Conditions To Be Completed Prior To Occupation**

The Country Fire Service (CFS) Bushfire Protection Conditions (four (4) conditions) shall be substantially completed prior to the occupation of the building and thereafter maintained in good condition.

**(13) Prior to Building Rules Consent Being Granted – Requirement for Soil Erosion And Drainage Plan (SEDMP)**

Prior to Building Rules Consent being granted the applicant shall prepare and submit to Council a Soil Erosion and Drainage Management Plan (SEDMP) for the site for Council's approval. The SEDMP shall comprise a site plan and design sketches that detail erosion control methods and installation of sediment collection devices that will prevent:

- a) soil moving off the site during periods of rainfall;
- b) erosion and deposition of soil moving into the remaining native vegetation; and
- c) soil transfer onto roadways by vehicles and machinery.

The works contained in the approved SEDMP shall be implemented prior to construction commencing and maintained to the reasonable satisfaction of Council during the construction period.

**(14) Stormwater Roof Runoff To Be Dealt With On-Site**

All roof runoff generated by the development hereby approved shall be managed on-site to the satisfaction of Council using design techniques such as:

- Rainwater Tanks
- Grassed swales
- Stone filled trenches
- Small infiltration basins

Stormwater overflow management shall be designed so as to not permit trespass into the effluent disposal area. Stormwater should be managed on site with no stormwater to trespass onto adjoining properties.

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(15) **Maximum Number of Guests for Tourist Accommodation**  
Each tourist accommodation villa shall accommodate a maximum of four (4) guests at any given time.

(16) **Tourist Accommodation**  
The person(s) having the benefit of this consent shall refrain from permitting the use of the building (or any part thereof) for the provision of long term accommodation or, as a separate dwelling. The tourist accommodation shall be used and operated on a short term rental arrangement with a maximum stay per occupancy not exceeding 28 days. Accommodation bookings for periods between 7 days and 28 days shall not exceed 10 percent of the total number of bookings per accommodation unit in any calendar year.

A logbook shall be kept of all bookings for each calendar year and made available for inspection by the Council upon request.

(17) **Removal of Redundant Crossovers**  
Any existing crossing places along Spoehr Road shall be considered redundant and shall be closed off prior to the occupation of the development herein-approved.

(18) **Sealing of Vehicle Access**  
The vehicle and cross-over as detailed on Entrance Enlargement Plan (dated 1 March 2021) shall be sealed in Hotmix bitumen, concrete, brick paving or similar material, from the edge of the sealed carriageway of Spoehr Road to the property boundary prior to the occupation of the development herein-approved.

NOTE: The access shall be constructed to ensure no construction materials are deposited onto the carriageway of Spoehr Road.

**NOTES**

(1) **Development Plan Consent**  
This Development Plan Consent (DPC) is valid for a period of twelve (12) months commencing from the date of the decision or, if an appeal has been commenced, the date on which it is determined, whichever is later.

Building Consent must be applied for prior to the expiry of the DPC and lodged through the PlanSA portal unless a private certifier was engaged prior to 19 March 2021. The time period may be further extended by Council agreement following written request and payment of the relevant fee.



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**(2) Water Storage Tanks**

A water storage tank (and any supporting structure) which:

- a) is not part of a roof drainage system; or
- b) has a total floor area exceeding ten (10) square metres; or
- c) is not wholly above ground; or
- d) has a part higher than four (4) metres above the natural surface of the ground, will require Council approval.

**(3) EPA Information Sheets**

Any information sheets, guideline documents, codes of practice, technical bulletins, are referenced in this decision can be accessed on the following web site: <http://www.epa.sa.gov.au/pub.html>

**(4) EPA Environmental Duty**

The applicant is reminded of his/her general environmental duty, as required by Section 25 of the Environment Protection Act 1993, to take all reasonable and practical measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes, or may cause, environmental harm.

**(5) EPA Sewer Pump Station Requirements**

The pipeline and automatic control system of the sewer pump station should be designed and constructed to minimise any potential overflow/discharge of sewerage to the environment.

**(6) Erosion Control during Construction**

Management of the property during construction shall be undertaken in such a manner as to prevent denudation, erosion or pollution of the environment.

**(7) Department of Environment and Water (DEW) – Native Vegetation Council**

The applicant is advised that any proposal to clear, remove limbs or trim native vegetation on the land, unless the proposed clearance is subject to an exemption under the Regulations of the Native Vegetation Act 1991, requires the approval of the Native Vegetation Council. For further information visit: [www.environment.sa.gov.au/Conservation/Native\\_Vegetation/Managing\\_native\\_vegetation](http://www.environment.sa.gov.au/Conservation/Native_Vegetation/Managing_native_vegetation)

Any queries regarding the clearance of native vegetation should be directed to the Native Vegetation Council Secretariat on 8303 9777. This must be sought prior to Full Development Approval being granted by Council.

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**(8) Bushfire Survival Plan – Tourist Accommodation**

A BUSHFIRE SURVIVAL PLAN (BSP) shall be displayed in the accommodation. This BSP shall be designed specifically for the purpose of any guests that may be in residence during a bushfire event, especially during the Fire Danger Season:

- This BSP should give clear directions to persons that may be unfamiliar with the area/locality and unfamiliar with what protective actions they may need to take to protect their lives during a bushfire event, including when to take such protective actions.
- The BSP should address the possibility that the owners may not be present at the time of the bushfire event.
- The BSP should not expect guests to be involved in fire-fighting operations.
- The SA CFS 'Bushfire Safety and Survival for Business and Organisations' document (refer to CFS website) should be utilised as a basis for information and the drafting of the (GUEST) BSP.
- The applicant should consider reducing operating hours and restrictions on days of extreme weather or bushfire events.

**(9) CFS Bushfire Attack Level**

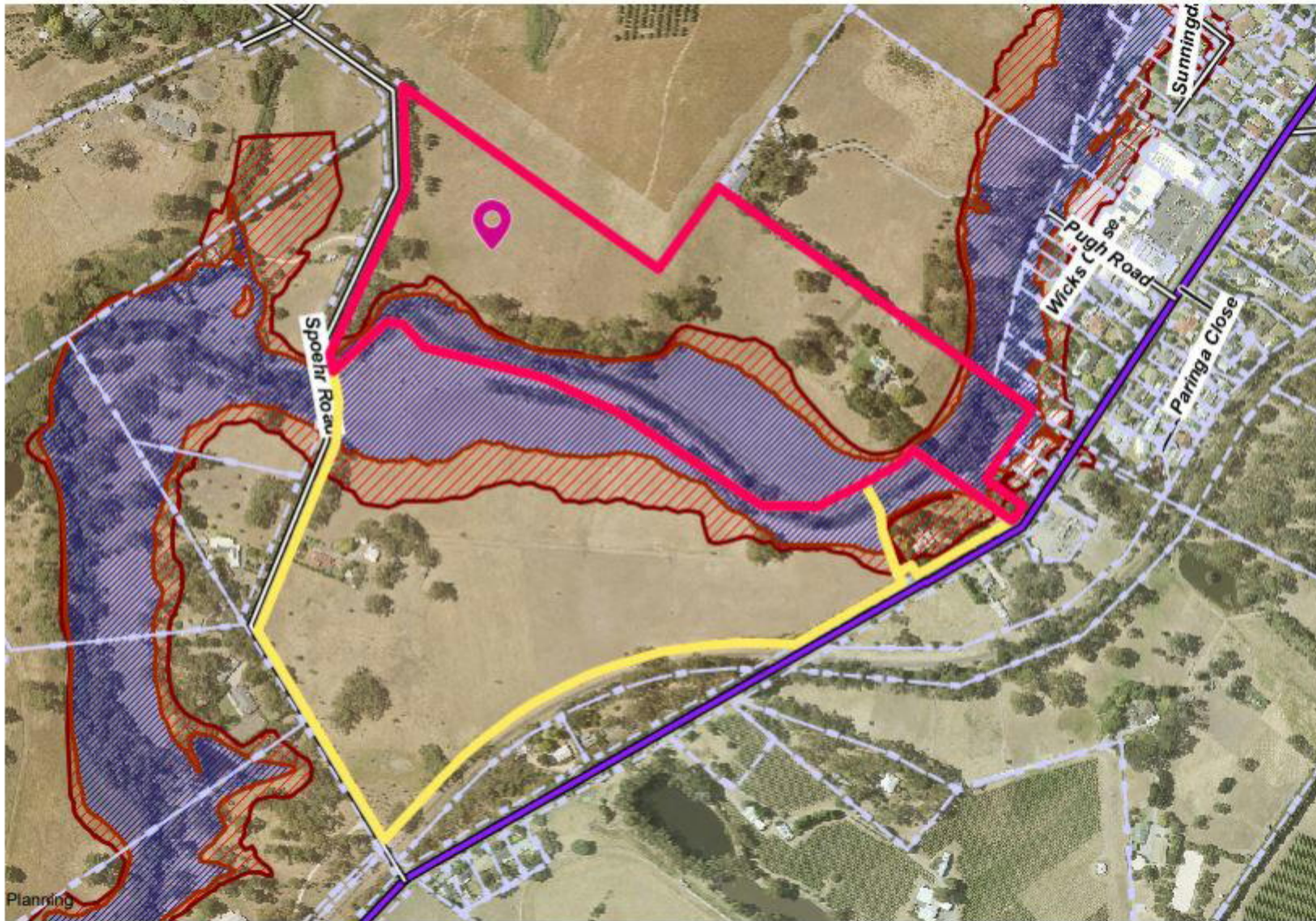
Compliance with the fire protection requirements is not a guarantee the dwelling will not burn, but its intent is to provide a "measure of protection" from the approach, impact and passing of a bushfire.

The Bushfire hazard for the area has been assessed as BAL 19 (applicable for Tourist Accommodation Villa's 1 & 2).

The buildings shall incorporate the construction requirements for buildings in Bushfire Prone areas in accordance with the Building Code of Australia Standard AS3959 "Construction of buildings in bushfire prone areas".

8:26pm The meeting was adjourned for a short break
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8:32pm The meeting resumed in open session
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**Annotations**

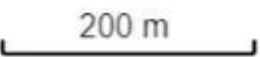
-  Subject Land
-  Representor Land 2
-  Representor Land 1

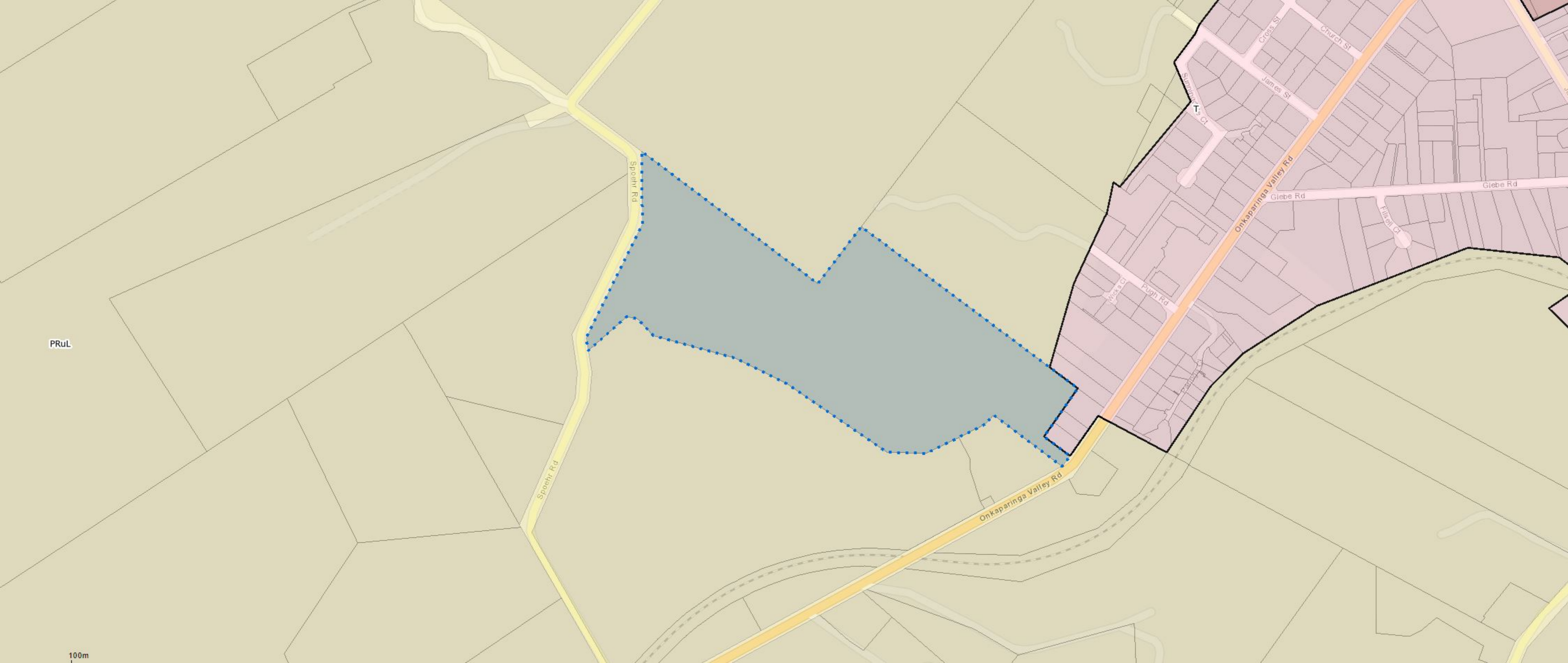
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Scale = 1:6032.880





PRuL

100m

Spoehr Rd

Spoehr Rd

Onkaparinga Valley Rd

Onkaparinga Valley Rd

Glebe Rd

Glebe Rd

James St

Church St

Summit Ct

Wee Ct

Pugh Rd

Filsell Ct



**Environment Protection Authority**  
GPO Box 2607 Adelaide SA 5001  
211 Victoria Square Adelaide SA 5000  
T (08) 8204 2004  
Country areas 1800 623 445

**OFFICIAL**

EPA Reference: PDI 557

28 July 2023

Marie Molinaro  
Adelaide Hills Council  
63 Mount Barker Road  
STIRLING SA 5152

[mmolinaro@ahc.sa.gov.au](mailto:mmolinaro@ahc.sa.gov.au)

Dear Marie Molinaro

### EPA Development Application Referral Response

<b>Development Application Number</b>	<b>23008597</b>
<b>Applicant</b>	<b>Mr Adam Johnson</b>
<b>Location</b>	<b>11 Onkaparinga Valley Road, Balhannah</b>
<b>Proposal</b>	<b>Variation to condition 5 of development authorisation 19/1064/473 - to connect tourist accommodation units to an on-site wastewater system.</b>

This application was referred to the Environment Protection Authority (EPA) by the Assessment Panel at Adelaide Hills Council in accordance with section 122 of the *Planning, Development and Infrastructure Act 2016*. The following response is provided in accordance with section 122(5)(b)(ii) of the *Planning, Development and Infrastructure Act*.

The EPA assessment criteria are outlined in section 57 of the *Environment Protection Act 1993* and include the objects of the Environment Protection Act, the general environmental duty, relevant environment protection policies and the waste strategy for the State.

Advice in this letter includes consideration of the location with respect to existing land uses and is aimed at protecting the environment and avoiding potential adverse impacts upon the locality.

## PROPOSAL

The proposal seeks to vary condition (5) of Development Application 473/1064/2019 which required the connection of two tourist accommodation units to be constructed on the subject land to an existing SA Water mains sewer. The EPA understands that SA Water has now provided advice confirming that connection to the existing mains sewer is now not possible, and that the two proposed tourist accommodation units would now need to be connected to an on-site wastewater system.

In order to service the two proposed tourist accommodation units and the existing dwelling, the applicant is proposing to install a totally enclosed sewer pump station which would accept sewage waste inflows by gravity from both units, and then transfer the waste via a pipeline to a new Aerobic Wastewater Treatment System (AWTS) to be located near the existing dwelling on the subject land.

## SITE

The site of the proposed development is located at 11 Onkaparinga Valley Road Balhannah, which is more particularly described as Allotment 80 in Deposited Plan 92095, Certificate of Title Volume 6122/Folio 499, Hundred of Onkaparinga.

The subject land comprises a large irregular shaped allotment which provides a total site area of 12.7 hectares and is currently developed with an existing dwelling which is connected to an existing septic tank and sub-surface soakage trench.

The subject land is provided with a frontage to Onkaparinga Valley Road to the south and Spoehr Road to the north-west and is transversed by the Onkaparinaga River which runs east to west along the southern boundary of the subject site.

The site of the proposed development is located within:

- the Mount Lofty Ranges Water Protection Area (MLR WPA), as proclaimed under section 61A of the *Environment Protection Act 1993*
- Mount Lofty Ranges Water Supply Catchment (Area 2) as identified in the *Planning and Design Code*
- Onkaparinga River catchment
- the Productive Rural Landscape Zone in the *Planning and Design Code*.

## ENVIRONMENTAL ASSESSMENT

The trigger for the referral of this development application to the EPA has been determined as follows;

*“dwelling where a habitable dwelling or tourist accommodation already exists on the same allotment (including where a valid planning authorisation exists to erect a dwelling or tourist accommodation on the same allotment)’ within the Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay of the Planning and Design Code”.*

Given that the proposed development would effectively result in three dwellings occupying the same allotment, the referral requires the EPA to provide an assessment and direction on whether the proposed development would have a neutral or beneficial effect on water quality.

The site has not been inspected during the EPA's consideration of this application but has been viewed using mapping information available to the EPA, including recent aerial imagery, and considered according to existing knowledge of the site and the locality.

### Water Quality

In water quality terms, unsewered residential development (such as detached dwellings and tourist accommodation) is considered one of the highest risk activities in a public water supply catchment due to historically poor management of on-site wastewater treatment systems. Potential pollutants from such activities include nutrients, microorganisms and pathogens from human effluent.

Previous water quality studies in the Mount Lofty Ranges Watershed have shown a direct relationship between development intensity and a decline in water quality. As most water pollution in the Mount Lofty Ranges Watershed is derived from diffuse sources, further pollution can only be prevented by avoiding incremental development that intensifies land use towards more polluting activities.

### Wastewater Management

Given that the site of the development is unable to be connected into a community wastewater management system or sewer due to capacity constraints associated with the existing SA Water network, the EPA's assessment of this application has primarily focused on the on-site treatment and disposal of wastewater and associated potential impacts on water quality. The EPA is concerned about the potential cumulative impact of nutrients contained in the treated wastewater draining into creeks and reservoirs. That said, the EPA notes that all elements of the wastewater collection, treatment and re-use system would be sited more than 50 metres from the nearby Onkaparinga River.

As previously mentioned, a totally enclosed sewer pump station would be installed on-site which would accept sewage waste inflows by gravity from both units. The waste would then be transferred via a 50mm HDPE pipeline to a new Aerobic Wastewater Treatment System (AWTS). The applicant has confirmed that wastewater treatment loading calculations have been undertaken using the SA Health *On-site Wastewater Systems Code - 2013* with the results indicating that an AWTS such as the FujiClean ACE 3000 would provide sufficient flow and organic loading capacity to effectively treat wastewater from both proposed tourist accommodation units and the existing dwelling.

This is considered acceptable to the EPA.

The revised documentation states that the proposed ACE 3000 AWTS, which would be located approximately 50 metres from the farm dam and 100 metres from the Onkaparinga River, would accept comminuted sewage flows from the pump station as well as raw sewage discharge from the existing dwelling via a graded drain junction, thereby replacing the existing septic tank and soakage system currently serving the existing dwelling. The proposed AWTS would also be installed with:

- an internal alarm panel - MKII Treatment Monitor Unit
- an external blower box with air-line connections
- a minimum 2,000 L pump-out chamber in accordance with AS1546.

Once treated, the wastewater would be transferred to a dedicated wastewater irrigation area located approximately 200 metres from the existing dwelling and 150 metres from the Onkaparinga River. The size of the proposed irrigation area would be 38 metres x 40 metres or 1,520 square metres in area and would be bunded and appropriately planted with a combination of shrubs and some trees.

The EPA understands that the proposed vegetation would be arranged in rows to enable a small tractor or 4WD vehicle to traverse the area to slash grasses or weed growth, apply sprays as required, inspect and maintain the irrigation infrastructure, and remove any individual trees which have succumbed to disease or pest infestation.

This is considered satisfactory to the EPA.

The supporting documentation also confirms that the existing on-site wastewater system currently supporting the existing dwelling would be de-commissioned. Once disconnected from the main house sewer, the existing septic tank would be pumped empty by an EPA licensed tanker contractor, following which, the base of the tank would be pierced with an excavator mounted rock-breaker attachment. Spoil would then be taken from the AWTs excavation to fill the old septic tank to ground level.

### **Stormwater Management**

If not managed appropriately, stormwater generally flows with pollutants, including those from building and construction activities, untreated into natural water bodies.

The supporting documentation confirms that the construction of the two new tourist accommodation units would also include the installation of two 22,500 litre rainwater tanks. The proposed tanks have been specifically designed to deal with the amount of stormwater to be captured by the two tourist accommodation units, which both provide a roof surface measuring 218 square metres in area.

The EPA understands that the captured stormwater would be directly pumped to each tourist unit and used primarily as the main water supply, for use within the toilet, laundry and other hot water applications. It is further noted that the overflow from each individual rainwater tank would be retained on-site, with overflow water to be directed away from the foundations of each building.

It is noted that stormwater captured by the existing dwelling would continue to be drained to a grass buffer strip measuring 100 square metres in area. Given that the change in runoff as a result of the proposed development is likely to be minimal (estimated to be 19.9%) the EPA is satisfied that impact on waters to be unlikely if runoff from the development is appropriately managed.

The EPA further notes that the proposed access tracks designed to service the proposed tourist accommodation units (total area 1,288 m<sup>2</sup>) would be constructed using compacted rubble. The use of this material is considered acceptable to the EPA as it has an infiltration rate greater than the surrounding soil and should allow for the gradual infiltration of stormwater on-site.

### **Construction Works**

During site works, including the construction of the rubble entrance track and the strip footings for the



two tourist accommodation units, particular attention must be given to protecting land stability and to the immediate rehabilitation and stabilisation after disturbance of the existing land surface has occurred. During such works, the provisions of the *Environment Protection (Water Quality) Policy 2015* should be applied. All reasonable and practicable measures must be taken to minimise the potential for pollution, including minimising the movement of soil and sediment beyond the boundaries of the site, including the Onkaparinga River that flows through the subject land.

Information provided in relation to the proposed construction works indicates that various measures are to be implemented to minimise erosion and protect the land, including the staging of construction activity involving the disturbance of soil likely to be affected by the elements, the use of diversion swales designed to direct surface stormwater around the proposed tourist accommodation sites and the connection of rainwater tanks to downpipes as soon as practicable after roof completion, to avoid roof-water being discharged to disturbed ground surfaces. This is considered acceptable to the EPA.

## CONCLUSION

The EPA considers the potential environmental risks associated with the proposed development are low provided the construction, operation and management of the associated wastewater management system is undertaken in accordance with the plans and details submitted with the application. As such the EPA is satisfied that the proposal would have a neutral or beneficial impact on water quality.

## DIRECTION

**The relevant authority is directed to attach the following condition to any approval:**

1. Prior to occupation of the two tourist accommodation units on the land, the associated wastewater system and wastewater disposal area must be installed and made operational, as per the details contained within the revised Wastewater Engineers Report prepared by Land Energy Pty Ltd, dated 28 June 2023.

**The following notes provide important information in relation to the development and are requested to be included in any approval:**

- The applicant is advised that during the proposed earthworks, measures to manage soil erosion and the drainage of stormwater should be implemented to ensure that soil and sediment do not pass beyond the bounds of the subject site.
- The applicant/owner/operator are reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that activities on the site and associated with the site (including during construction) do not pollute the environment in a way which causes or may cause environmental harm.
- More information about the Environment Protection Authority and the Environment Protection Act and policies can be found at: [www.epa.sa.gov.au](http://www.epa.sa.gov.au) .

If you have any questions about this response, please contact Stephen Both, Senior Environmental Planner on (08) 8204 1112 or email [stephen.both@sa.gov.au](mailto:stephen.both@sa.gov.au) .

Yours faithfully

Hayley Riggs  
Delegate  
**ENVIRONMENT PROTECTION AUTHORITY**

## Marie Molinaro

---

**From:** Caren Siegfriedt (CFS)  
**Sent:** Monday, 28 August 2023 5:04 PM  
**To:** Marie Molinaro  
**Cc:** Jess Page (CFS)  
**Subject:** RE: RE: Variation - 11 Onkaparinga Valley Road, Balhannah - 19/1064 - part 2  
**Attachments:** OVE0001 OVE Balhannah Villas concept plan\_SA CFS stamped (20230828cs).pdf

[EXTERNAL]

### OFFICIAL

Hi Marie

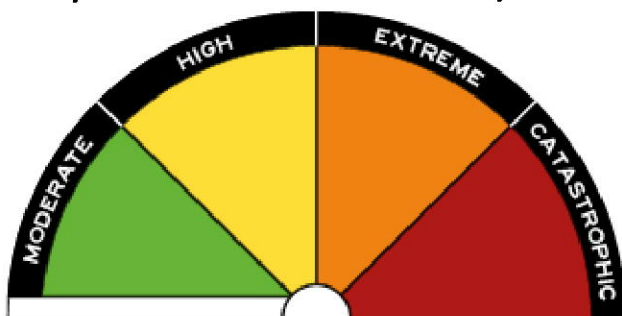
I have reviewed the amended plans and can confirm that the SA CFS has no objection to the amended driveway and truck turning options. Our original conditions will remain the same and are being met by the new plans. I have attached a stamped copy of the plans for your record.

Kind regards  
Caren

**Caren Siegfriedt**  
Bushfire Safety Officer  
South Australian Country Fire Service  
Level 1, 37 Richmond Road (Emergency Services Headquarters 'Kumatpi Trruku')  
Keswick SA 5035

[cfs.sa.gov.au](https://cfs.sa.gov.au) | [Find us on Facebook](#) | [Follow us on Twitter](#)

***The South Australian Country Fire Service (Adelaide Headquarters) is relocating to the new Emergency Services Headquarters located 37 Richmond Road, Keswick SA, 5035. Our PO Box and phone numbers remain the same.***



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*In the spirit of reconciliation the CFS acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.*

PROJECT

**OVE0001 OVE  
Balhannah Villas**

DRAWING

**OVE0001/A  
3D renders**

DRAWING SIZE: A2

DRAWING SCALE: N/A



ADAM JOHNSON DESIGN\_

CONTACT: ADAM JOHNSON  
EMAIL: AJ@ADAMJOHNSONDESIGN.COM.AU  
MOB: 0403 535 207

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO COMMENCING WORK AND ANY DISCREPANCY SHALL BE REPORTED TO THE DESIGNER IMMEDIATELY. FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DIMENSIONS

**Sighted by: CFS**  
28/08/2023  
Development Assessment  
Service Officer



PROJECT

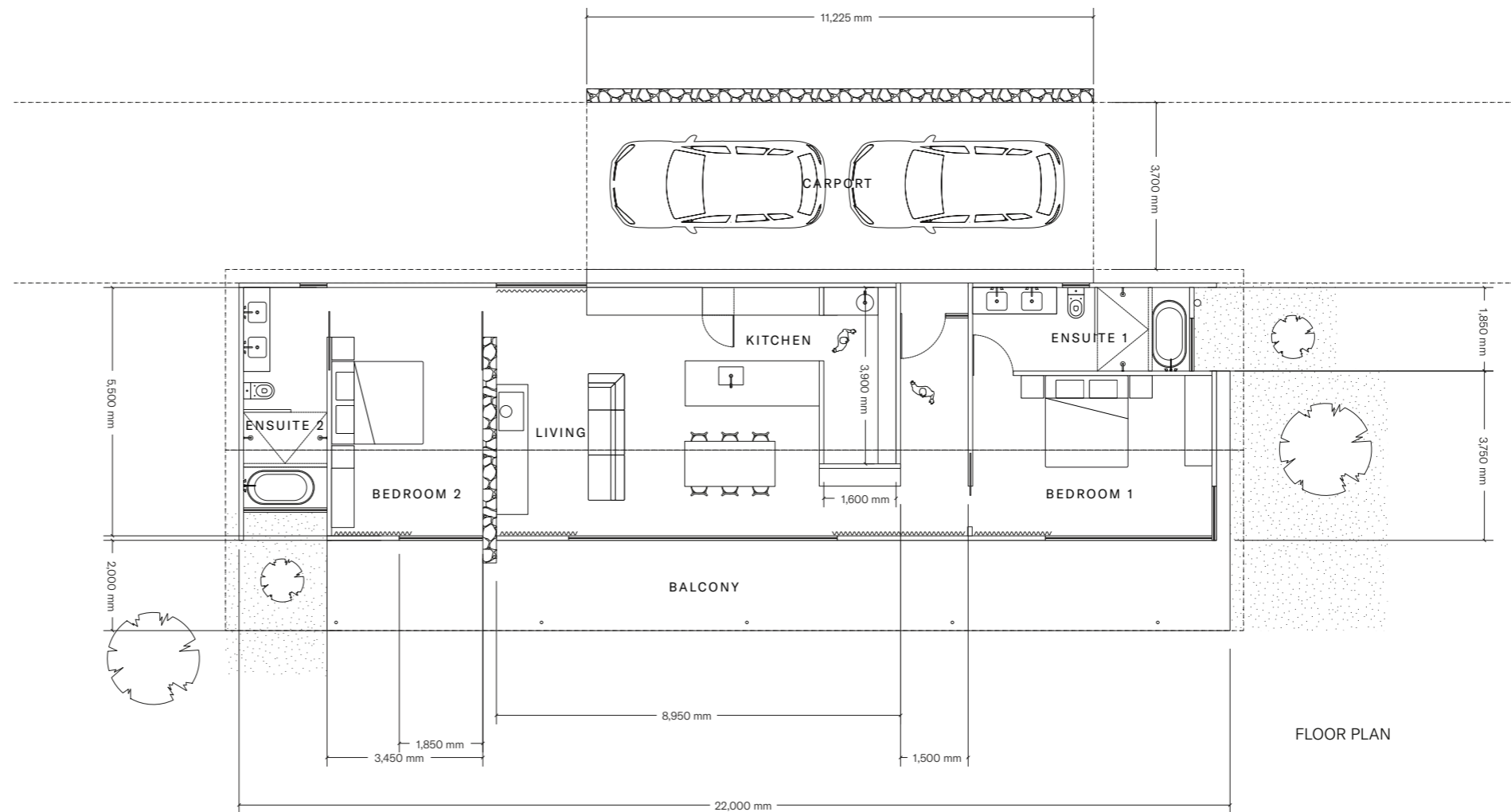
**OVE0001 OVE  
Balhannah Villas**

DRAWING

**OVE0001/B  
Concept plan**

DRAWING SIZE: A2

DRAWING SCALE: N/A



ADAM JOHNSON DESIGN\_

CONTACT: ADAM JOHNSON  
EMAIL: AJ@ADAMJOHNSONDESIGN.COM.AU  
MOB: 0403 535 207

CONTRACTORS SHALL VERIFY ALL DIMENSIONS  
AND LEVELS ON SITE PRIOR TO COMMENCING  
WORK AND ANY DISCREPANCY SHALL BE  
REPORTED TO THE DESIGNER IMMEDIATELY.  
FIGURED DIMENSIONS SHALL TAKE  
PREFERENCE OVER SCALED DIMENSIONS

**Sighted by: CFS**

28/08/2023

Development Assessment  
Service Officer



PROJECT

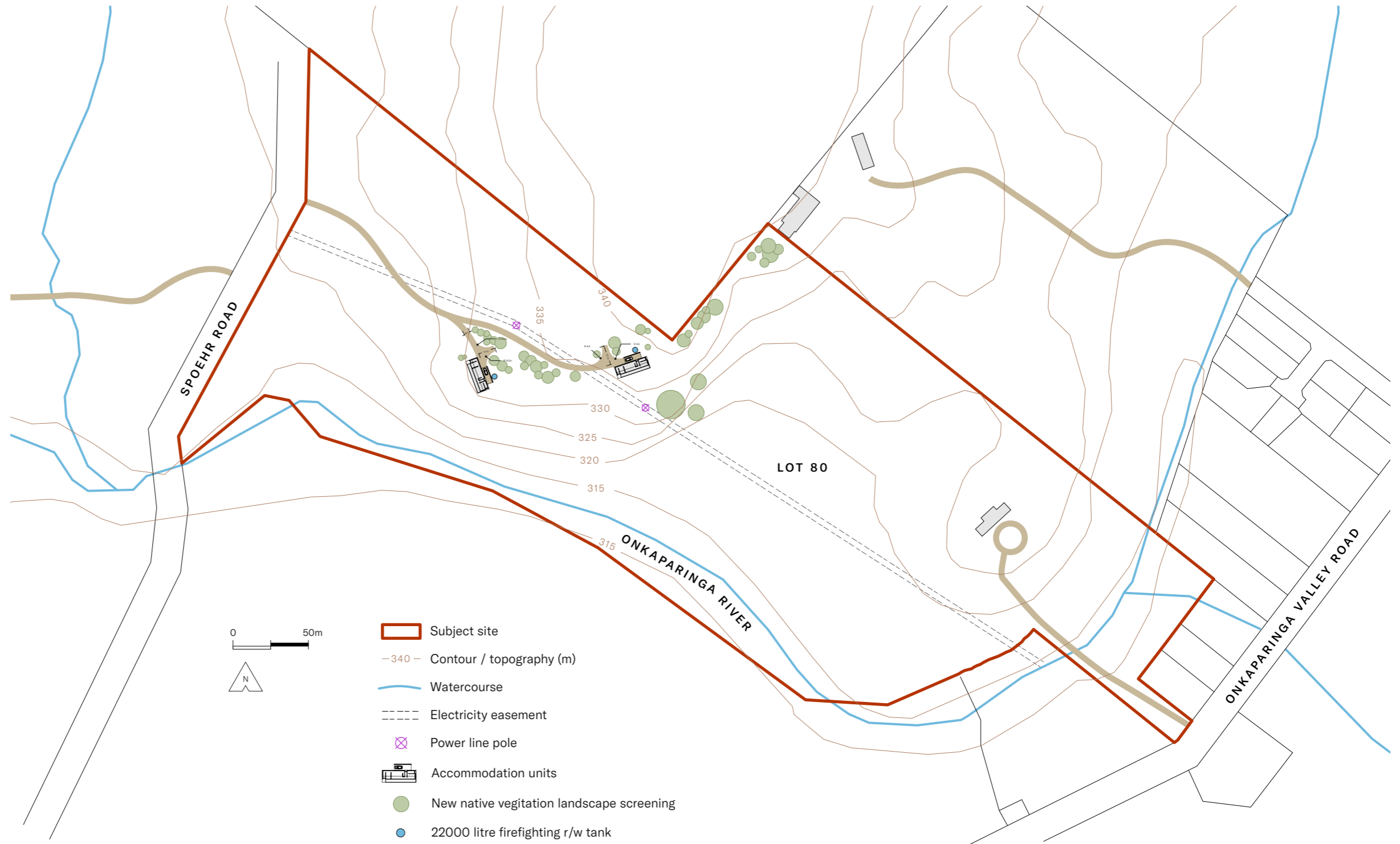
**OVE0001 OVE  
Balhannah Villas**

DRAWING

**OVE0001/C  
Site plan**

DRAWING SIZE: A2

DRAWING SCALE: N/A



ADAM JOHNSON DESIGN

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EMAIL: AJ@ADAMJOHNSONDESIGN.COM.AU  
MOB: 0403 535 207

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO COMMENCING WORK AND ANY DISCREPANCY SHALL BE REPORTED TO THE DESIGNER IMMEDIATELY. FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DIMENSIONS

**Sighted by: CFS**  
28/08/2023  
Development Assessment  
Service Officer



PROJECT

**OVE0001 OVE  
Balhannah Villas**

DRAWING

**OVE0001/C  
Materiality**

DRAWING SIZE: A2

DRAWING SCALE: 1:100



**STRUCTURE**

Durable / weather-proof materials that develop character over time.



**FURNISHINGS**

Simple, quality, unpretentious items that compliment the built structure and the landscape



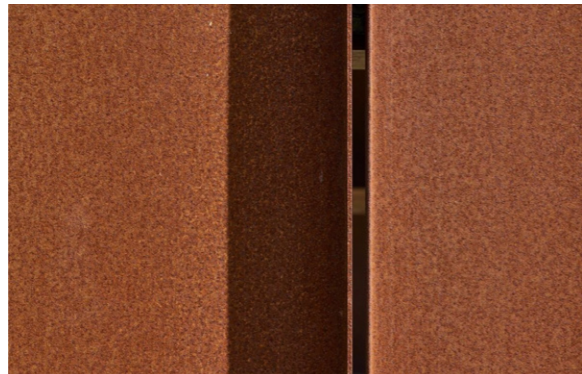
**TIMBER**

Feature-rich blackbutt for south-facing exterior cladding and interior structure / ceiling



**FITTINGS**

Quality fittings with materials that patina and improve with age.



**CORTEN STEEL**

On facings exposed to the elements. Requires no maintenance / upkeep



**FEATURE ITEMS**

Kohler Bannon sink in scullery



**LANDSCAPING**

Low-maintenance, drought-tolerant evergreen natives that soften the immediate landscape



**SCREENING**

Adjustable screening to allow occupant to control light/shade/privacy



**CONSIDERED DETAILS**

Practical components to improve functionality / guest experience



**STONE**

Locally sourced Carey Gully sandstone



**OUTDOOR FURNITURE**

Considered pieces that are designed to withstand the elements



**INTEGRATION WITH NATURE**

Built environment in immediate contact with the landscape



**ARCHITECTURAL DETAIL**

Considered use of materials to improve function as well as form



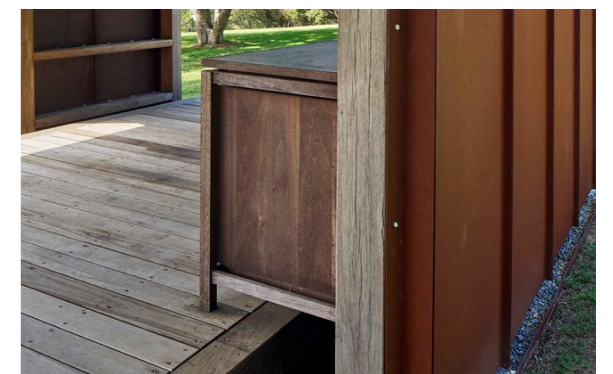
**ENGINEERING**

Structural components that become design features in their own right



**IMMERSION**

The opportunity for guests to bathe without the privacy concerns of the city



**OLD AND NEW**

A mix of new and re-claimed elements to imply that the structure wasn't 'just built'

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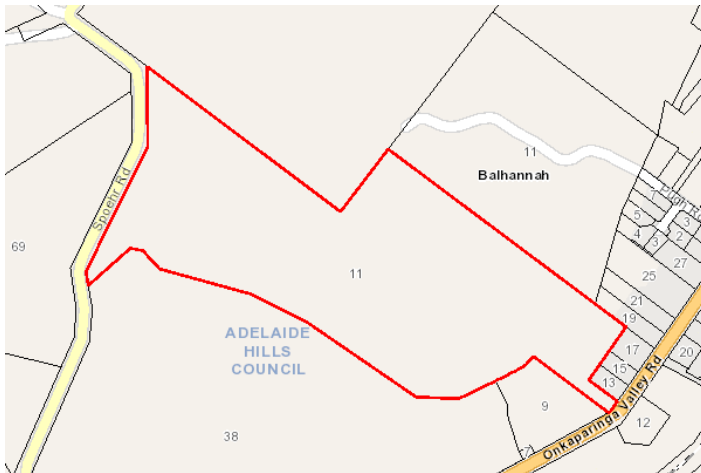
CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO COMMENCING WORK AND ANY DISCREPANCY SHALL BE REPORTED TO THE DESIGNER IMMEDIATELY. FIGURED DIMENSIONS SHALL TAKE PREFERENCE OVER SCALED DIMENSIONS

11 ONKAPARINGA VALLEY RD BALHANNAH SA 5242

**Address:**

Click to view a detailed interactive [SAILIS](#) in [SAILIS](#)

To view a detailed interactive property map in SAPPA click on the map below



**Property Zoning Details**

**Zone**

Productive Rural Landscape

**Overlay**

Environment and Food Production Area  
 Hazards (Flooding)  
 Hazards (Bushfire - High Risk)  
 Hazards (Flooding - General)  
 Key Railway Crossings  
 Limited Land Division  
 Mount Lofty Ranges Water Supply Catchment (Area 2)  
 Native Vegetation  
 Prescribed Water Resources Area  
 Traffic Generating Development  
 Urban Transport Routes  
 Water Resources

**Development Pathways**

■ Productive Rural Landscape

1. Accepted Development

Means that the development type does not require planning consent (planning approval). Please ensure compliance with relevant land use and development controls in the Code.

- None

2. Code Assessed - Deemed to Satisfy

Means that the development type requires consent (planning approval). Please ensure compliance with relevant land use and development controls in the Code.

- Advertisement

3. Code Assessed - Performance Assessed

Performance Assessed development types listed below are those for which the Code identifies relevant policies.

Additional development types that are not listed as Accepted, Deemed to Satisfy or Restricted default to a Performance assessed Pathway. Please contact your local council for more information.

- None

4. Impact Assessed - Restricted

Means that the development type requires approval. Classes of development that are classified as Restricted are listed in Table 4 of the relevant Zones.

**Property Policy Information for above selection**



## Part 2 - Zones and Sub Zones

### Productive Rural Landscape Zone

#### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A diverse range of land uses at an appropriate scale and intensity that capitalise on the region's proximity to the metropolitan area and the tourist and lifestyle opportunities this presents while also conserving the natural and rural character, identity, biodiversity and sensitive environmental areas and scenic qualities of the landscape.
DO 2	A zone that promotes agriculture, horticulture, value adding opportunities, farm gate businesses, the sale and consumption of agricultural based products, tourist development and accommodation that expands the economic base and promotes its regional identity.
DO 3	Create local conditions that support new and continuing investment while seeking to promote co-existence with adjoining activities and mitigate land use conflicts.

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	
PO 1.1 The productive value of rural land for a range of primary production and horticultural activities and associated value adding of primary produce (such as beverage production), retailing and tourism is supported, protected and maintained. The proliferation of land uses that may be sensitive to those activities is avoided.	DTS/DPF 1.1 Development comprises one or more of the following: <ul style="list-style-type: none"> <li>(a) Advertisement</li> <li>(b) Agricultural building</li> <li>(c) Brewery</li> <li>(d) Carport</li> <li>(e) Cidery</li> <li>(f) Distillery</li> <li>(g) Dwelling</li> <li>(h) Dwelling addition</li> <li>(i) Farming</li> <li>(j) Function centre</li> <li>(k) Horse keeping</li> <li>(l) Horticulture</li> <li>(m) Industry</li> <li>(n) Low intensity animal husbandry</li> <li>(o) Outbuilding</li> <li>(p) Shop</li> <li>(q) Small-scale ground mounted solar power facility</li> <li>(r) Tourist accommodation</li> <li>(s) Transport distribution</li> <li>(t) Verandah</li> <li>(u) Warehouse</li> <li>(v) Winery</li> <li>(w) Workers' accommodation</li> </ul>
Siting and Design	
PO 2.1	DTS/DPF 2.1

Development is provided with suitable vehicle access.	Development is serviced by an all-weather trafficable public road.
PO 2.2 Buildings are generally located on flat land to minimise cut and fill and the associated visual impacts.	DTS/DPF 2.2 Buildings: (a) are located on a site with a slope not greater than 10% (1-in-10) (b) do not result excavation and/or filling of land that is greater than 1.5m from natural ground level.
Horticulture	
PO 3.1 Horticulture is located and conducted on land that has the physical capability of supporting the activity and in a manner that:  (a) enhances the productivity of the land for the growing of food and produce in a sustainable manner (b) avoids adverse interface conflicts with other land uses (c) utilises sound environmental practices to mitigate negative impacts on natural resources and water quality (d) is sympathetic to surrounding rural landscape character and amenity, where horticulture is proposed to be carried out in an enclosed building such as such as a greenhouse.	DTS/DPF 3.1 Horticultural activities:  (a) are conducted on an allotment with an area of at least 1ha (b) are sited on land with a slope not greater than 10% (1-in-10) (c) are not conducted within 50m of a watercourse or native vegetation (d) are not conducted within 100m of a sensitive receiver in other ownership (e) provide for a headland area between plantings and property boundaries of at least 10m in width (f) where carried out in an enclosed building such as a greenhouse, the building has a total floor area not greater than 250m <sup>2</sup> (g) in the form of olive growing, is not located within 500m of a conservation or national park.
Rural Industry	
PO 4.1 Small-scale industry (including beverage production and washing, processing, bottling and packaging activities), storage, warehousing, produce grading and packing, transport distribution or similar activities provide opportunities for diversification and value adding to locally sourced primary production activities.	DTS/DPF 4.1 Industries, storage, warehousing, produce grading and packing and transport distribution activities and similar activities (or any combination thereof):  (a) are directly related and ancillary to a primary production use on the same or adjoining allotment (b) are located on an allotment not less than 2ha in area (c) have a total floor area not exceeding 350m <sup>2</sup> .
PO 4.2 Expansion of established small-scale or new large scale industry (including beverage production and washing, processing, bottling and packaging activities), storage, warehousing, produce grading and packing, transport distribution or similar activities:  (a) are commensurate with the allotment on which it is situated to mitigate adverse impacts on the amenity of land in other ownership and the character of locality (b) realise efficiencies in primary production related storage, sorting, packaging, manufacturing and the like (c) primarily involve primary production commodities sourced from the same allotment and/or surrounding rural areas.	DTS/DPF 4.2 None are applicable.
PO 4.3 Industry, storage, warehousing, transport distribution or similar activities are sited, designed and of a scale that maintains rural function and character in a manner that respects landscape amenity.	DTS/DPF 4.3 Buildings and associated activities:  (a) are setback at least 50m from all road and allotment boundaries (b) are not sited within 100m of a sensitive receiver in other ownership (c) have a building height not greater than 10m above natural ground level (d) incorporate the loading and unloading of vehicles within the confines of the allotment.
Dwellings	
PO 5.1 Dwellings provide a convenient base for landowners to conduct and manage commercial scale primary production and related value adding activities without compromising the use of the allotment, adjacent land or long term	DTS/DPF 5.1 Dwellings:  (a) are located on an allotment with an area not less than:

purpose of the zone for primary production or related tourism values due to proliferation of dwellings.	<p>(b) are located on an allotment used for and is ancillary to primary production and/or primary production related value-adding activities</p> <p>(c) will not result in more than one dwelling on an allotment.</p> <p>In relation to DTS/DPF 5.1, in instances where:</p> <p>(d) more than one value is returned, refer to the <i>Minimum Dwelling Allotment Size Technical and Numeric Variation</i> layer in the SA planning database to determine the applicable value relevant to the site of the proposed development</p> <p>(e) no value is returned for DTS/DPF 5.1(a) (ie there is a blank field), then there is no minimum dwelling allotment size applicable and DTS/DPF 5.1(a) is met.</p>
<p>PO 5.2</p> <p>Dwelling are sited, designed and of a scale that maintains a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 5.2</p> <p>Dwellings:</p> <p>(a) are setback from all allotment boundaries by at least 40m</p> <p>(b) do not exceed 2 building levels and 9m measured from the top of the footings</p> <p>(c) have a wall height no greater than 6m.</p>
<p>PO 5.3</p> <p>Development resulting in more than one dwelling on an allotment supports ageing in place for the owner of the allotment or multi-generational management of farms in a manner that minimises the potential loss of land available for primary production.</p>	<p>DTS/DPF 5.3</p> <p>Dwelling that will result in more than one dwelling on an allotment where all the following are satisfied:</p> <p>(a) it is located within 20m of an existing dwelling</p> <p>(b) share the same utilities of the existing dwelling</p> <p>(c) will use the same access point from a public road as the existing dwelling</p> <p>(d) it is located on an allotment not less than 40ha in area</p> <p>(e) will not result in more than two dwellings on an allotment.</p>
<p>PO 5.4</p> <p>Dwelling additions are sited, designed and of a scale that maintains a pleasant rural character and amenity.</p>	<p>DTS/DPF 5.4</p> <p>Additions or alterations to an existing dwelling:</p> <p>(a) are setback behind the main façade of the existing dwelling</p> <p>(b) do not exceed 2 building levels and 9m measured from the top of the footings</p> <p>(c) have a wall height that is no greater than 6m from the top of the footings.</p>
Shops, Tourism and Function Centres	
<p>PO 6.1</p> <p>Shops are associated with an existing primary production or primary production related value adding industry to support diversification of employment, provide services to visitors and showcase local and regional products.</p>	<p>DTS/DPF 6.1</p> <p>Shops, other than where located in The Cedars Subzone:</p> <p>(a) are ancillary to and located on the same allotment or adjoining allotment used for primary production or primary production related value adding industries</p> <p>(b) offer for sale or consumption produce or goods that are primarily sourced, produced or manufactured on the same allotment or adjoining allotments</p> <p>(c) have a gross leasable floor area not exceeding 100m<sup>2</sup> or 250m<sup>2</sup> in the case of a cellar door</p> <p>(d) have an area for the display of produce or goods external to a building not exceeding 25m<sup>2</sup></p> <p>(e) do not result in more than 75 seats for customer dining purposes in a restaurant.</p>
<p>PO 6.2</p> <p>Shops that are proposed in new buildings are sited, designed and of a scale that maintains a pleasant rural character and amenity.</p>	<p>DTS/DPF 6.2</p> <p>Shops in new buildings:</p>

	<ul style="list-style-type: none"> <li>(a) are setback from all property boundaries by at least 20m</li> <li>(b) are not sited within 100m of a sensitive receiver in other ownership</li> <li>(c) have a building height that does not exceed 9m above natural ground level.</li> </ul>
<p>PO 6.3</p> <p>Tourist accommodation is associated with the primary use of the land for primary production or primary production related value adding industry to enhance and provide authentic visitor experiences.</p>	<p>DTS/DPF 6.3</p> <p>Tourist accommodation, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) is ancillary to and located on the same allotment or an adjoining allotment used for primary production or primary production related value adding industry</li> <li>(b) in relation to the area used for accommodation: <ul style="list-style-type: none"> <li>(i) where in a new building, does not exceed a total floor area of 100m<sup>2</sup></li> <li>(ii) where in an existing building, does not exceed 150m<sup>2</sup></li> </ul> </li> <li>(c) does not result in more than one facility being located on the same allotment.</li> </ul>
<p>PO 6.4</p> <p>Tourist accommodation proposed in a new building or buildings are sited, designed and of a scale that maintains a pleasant rural character and amenity.</p>	<p>DTS/DPF 6.4</p> <p>Tourist accommodation in new buildings:</p> <ul style="list-style-type: none"> <li>(a) is setback from all property boundaries by at least 40m</li> <li>(b) has a building height that does not exceed 7m above natural ground level.</li> </ul>
<p>PO 6.5</p> <p>Function centres are associated with the primary use of the land for primary production or primary production related value adding industry.</p>	<p>DTS/DPF 6.5</p> <p>Function centres, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) are ancillary to and located on the same allotment or an adjoining allotment used for primary production or primary production related value adding industry</li> <li>(b) do not exceed a capacity of 75 persons for customer dining purposes.</li> </ul>
<p>PO 6.6</p> <p>Function centres are sited, designed and of a scale that maintains a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 6.6</p> <p>Function centres:</p> <ul style="list-style-type: none"> <li>(a) are located on an allotment having an area of at least 5ha</li> <li>(b) are setback from all property boundaries by at least 40m</li> <li>(c) are not sited within 100m of a sensitive receiver in other ownership</li> <li>(d) have a building height that does not exceed 9m above natural ground level.</li> </ul>
Offices	
<p>PO 7.1</p> <p>Offices are directly related to and associated with the primary use of the land for primary production or primary production related value adding industry.</p>	<p>DTS/DPF 7.1</p> <p>Offices, other than where located in The Cedars Subzone:</p> <ul style="list-style-type: none"> <li>(a) are ancillary to and located on the same allotment or an adjoining allotment used for primary production or primary production related value adding industry</li> <li>(b) have a gross leasable floor area not exceeding 100m<sup>2</sup>.</li> </ul>
Adaptive Reuse of Existing Buildings	
<p>PO 8.1</p> <p>Adaptive reuse of existing buildings for small-scale shops, offices, tourist accommodation or ancillary rural activities.</p>	<p>DTS/DPF 8.1</p> <p>Development within an existing building is for any of the following:</p> <ul style="list-style-type: none"> <li>(a) a shop</li> <li>(b) office</li> <li>(c) tourist accommodation.</li> </ul>
Workers' accommodation	
<p>PO 9.1</p> <p>Workers' accommodation provides short-term accommodation for persons temporarily engaged in the production, management or processing of primary</p>	<p>DTS/DPF 9.1</p> <p>Workers' accommodation:</p>

produce.	<ul style="list-style-type: none"> <li>(a) is developed on a site at least 2ha in area</li> <li>(b) has a total floor area not exceeding 250m<sup>2</sup></li> <li>(c) is in the form of a single building or part of a cluster of buildings that are physically connected</li> <li>(d) amenities accommodate not more than 20 persons at any one time</li> <li>(e) is setback at least 50m from a road boundary</li> <li>(f) is setback at least 40m from a side or rear allotment boundary</li> <li>(g) is located within 20m of an existing dwelling on the same allotment</li> <li>(h) does not result in more than one facility being located on the same allotment.</li> </ul>
Renewable Energy Facilities	
PO 10.1 Renewable energy facilities and ancillary development minimises significant fragmentation or displacement of existing primary production.	DTS/DPF 10.1 None are applicable.
PO 10.2 Small-scale ground mounted solar power facilities support rural production or value-adding industries.	DTS/DPF 10.2 None are applicable.
Built Form and Character	
PO 11.1 Large buildings designed and sited to reduce impacts on scenic and rural vistas by: <ul style="list-style-type: none"> <li>(a) having substantial setbacks from boundaries and adjacent public roads</li> <li>(b) using low reflective materials and finishes that blend with the surrounding landscape</li> <li>(c) being located below ridgelines.</li> </ul>	DTS/DPF 11.1 None are applicable.
Land Division	
PO 12.1 Land division creating additional allotments is not supported other than where located in The Cedars Subzone to support tourist development.	DTS/DPF 12.1 Except where the land division is proposed in The Cedars Subzone, no additional allotments are created.
PO 12.2 Allotment boundaries, including by realignment, are positioned to incorporate sufficient space around existing residential, tourist accommodation and other habitable buildings (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) to: <ul style="list-style-type: none"> <li>(a) maintain a pleasant rural character and amenity for occupants</li> <li>(b) manage vegetation within the same allotment to mitigate bushfire hazard.</li> </ul>	DTS/DPF 12.2 Allotment boundaries are located no closer to an existing residential, tourist accommodation or other habitable building than the greater of the following: <ul style="list-style-type: none"> <li>(a) 40m</li> <li>(b) the distance required to accommodate an asset protection zone wholly within the relevant allotment.</li> </ul>
Agricultural Buildings	
PO 13.1 Agricultural buildings and associated activities are sited, designed and of a scale that maintains a pleasant rural character and function.	DTS/DPF 13.1 Agricultural buildings: <ul style="list-style-type: none"> <li>(a) are located on an allotment having an area of at least 2ha</li> <li>(b) are setback at least 40m from an allotment boundary</li> <li>(c) have a building height not exceeding 10m above natural ground level</li> <li>(d) do not exceed 350m<sup>2</sup> in total floor area</li> <li>(e) incorporate the loading and unloading of vehicles within the confines of the allotment.</li> </ul>
Outbuildings, Carports and Verandahs	
PO 14.1 Outbuildings are sited, designed and of a scale that maintain a pleasant natural and rural character and amenity.	DTS/DPF 14.1 Outbuildings: <ul style="list-style-type: none"> <li>(a) have a primary street setback that is at least as far back as the building to which it is ancillary</li> </ul>

	<ul style="list-style-type: none"> <li>(b) have a combined total floor area that does not exceed 100m<sup>2</sup></li> <li>(c) have walls that do not exceed 5m in height measured from natural ground level not including a gable end</li> <li>(d) have a total roof height that does not exceed 6m measured from natural ground level</li> <li>(e) if clad in sheet metal, it is pre-colour treated or painted in a non-reflective colour</li> <li>(f) will not result in more than 2 outbuildings on the same allotment.</li> </ul>
<p>PO 14.2</p> <p>Carports and verandahs are sited, designed and of a scale to maintain a pleasant natural and rural character and amenity.</p>	<p>DTS/DPF 14.2</p> <p>Carports and verandahs:</p> <ul style="list-style-type: none"> <li>(a) are set back from the primary street at least as far back as the building to which it is ancillary</li> <li>(b) have a total floor area that does not exceed 80m<sup>2</sup></li> <li>(c) have a post height that does not exceed 3m measured from natural ground level (not including a gable end)</li> <li>(d) have a total roof height that does not exceed 5m measured from natural ground level</li> <li>(e) if clad in sheet metal, the cladding is pre-colour treated or painted in a non-reflective colour.</li> </ul>
Concept Plans	
<p>PO 15.1</p> <p>Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure.</p>	<p>DTS/DPF 15.1</p> <p>The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant:</p> <p>In relation to DTS/DPF 15.1, in instances where:</p> <ul style="list-style-type: none"> <li>(a) one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant.</li> <li>(b) in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 15.1 is met.</li> </ul>
Advertisements	
<p>PO 16.1</p> <p>Freestanding advertisements that identify the associated business without creating a visually dominant element within the locality.</p>	<p>DTS/DPF 16.1</p> <p>Freestanding advertisements:</p> <ul style="list-style-type: none"> <li>(a) do not exceed 2m in height</li> <li>(b) do not have a sign face that exceeds 2m<sup>2</sup> per side.</li> </ul>

**Table 5 - Procedural Matters (PM) - Notification**

The following table identifies, pursuant to section 107(6) of the *Planning, Development and Infrastructure Act 2016*, classes of performance assessed development that are excluded from notification. The table also identifies any exemptions to the placement of notices when notification is required.

**Interpretation**

Notification tables exclude the classes of development listed in Column A from notification provided that they do not fall within a corresponding exclusion prescribed in Column B.

Where a development or an element of a development falls within more than one class of development listed in Column A, it will be excluded from notification if it is excluded (in its entirety) under any of those classes of development. It need not be excluded under all applicable classes of development.

Where a development involves multiple performance assessed elements, all performance assessed elements will require notification (regardless of whether one or more elements are excluded in the applicable notification table) unless every performance assessed element of the application is excluded in the applicable notification table, in which case the application will not require notification.

<b>Class of Development</b>	<b>Exceptions</b>
<b>(Column A)</b>	<b>(Column B)</b>

1. Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	None specified.
2. Any development involving any of the following (or of any combination of any of the following): (a) advertisement (b) agricultural building (c) air handling unit, air conditioning system or exhaust fan (d) ancillary accommodation (e) building work on railway land (f) carport (g) demolition (h) dwelling (i) dwelling addition (j) farming (k) horse keeping (l) internal building work (m) land division (n) outbuilding (o) private bushfire shelter (p) protective tree netting structure (q) replacement building (r) retaining wall (s) solar photovoltaic panels (roof mounted) (t) shade sail (u) swimming pool or spa pool (v) temporary accommodation in an area affected by bushfire (w) tree damaging activity (x) verandah (y) water tank.	None specified.
3. Any development involving any of the following (or of any combination of any of the following): (a) industry (b) store (c) warehouse.	Except development that does not satisfy any of the following:  1. Productive Rural Landscape Zone DTS/DPF 4.1 2. Productive Rural Landscape Zone DTS/DPF 4.3.
4. Demolition.	Except any of the following:  1. the demolition of a State or Local Heritage Place 2. the demolition of a building (except an ancillary building) in a Historic Area Overlay.
5. Function centre within The Cedars Subzone.	None specified.
6. Function centre.	Except function centre that does not satisfy Productive Rural Landscape Zone DTS/DPF 6.6.
7. Horticulture.	Except horticulture that does not satisfy any of the following:  1. Productive Rural Landscape Zone DTS/DPF 3.1(d) 2. Productive Rural Landscape Zone DTS/DPF 3.1(e).
8. Shop within The Cedars Subzone.	None specified.
9. Shop.	Except shop that does not satisfy any of the following:  1. Productive Rural Landscape Zone DTS/DPF 6.1 2. Productive Rural Landscape Zone DTS/DPF 6.2.

10. Tourist accommodation within The Cedars Subzone.	None specified.
11. Tourist accommodation.	Except tourist accommodation that does not to satisfy any of the following: <ol style="list-style-type: none"> <li>1. Productive Rural Landscape Zone DTS/DPF 6.3</li> <li>2. Productive Rural Landscape Zone DTS/DPF 6.4.</li> </ol>
<b>Placement of Notices - Exemptions for Performance Assessed Development</b>	
None specified.	
<b>Placement of Notices - Exemptions for Restricted Development</b>	
None specified.	

## Part 3 - Overlays

### Environment and Food Production Areas Overlay

#### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of valuable rural, landscape, environmental and food production areas from urban encroachment.

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Land division undertaken in accordance with Section 7 of the <i>Planning, Development and Infrastructure Act 2016</i> .	DTS/DPF 1.1 None are applicable.

#### Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

### Hazards (Bushfire - High Risk) Overlay



Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	<p>Development, including land division is sited and designed to minimise the threat and impact of bushfires on life and property with regard to the following risks:</p> <ul style="list-style-type: none"> <li>(a) potential for uncontrolled bushfire events taking into account the increased frequency and intensity of bushfires as a result of climate change</li> <li>(b) high levels and exposure to ember attack</li> <li>(c) impact from burning debris</li> <li>(d) radiant heat</li> <li>(e) likelihood and direct exposure to flames from a fire front.</li> </ul>
DO 2	<p>Activities that increase the number of people living and working in the area or where evacuation would be difficult is sited away from areas of unacceptable bushfire risk.</p>
DO 3	<p>To facilitate access for emergency service vehicles to aid the protection of lives and assets from bushfire danger.</p>

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use	
<p>PO 1.1</p> <p>Development that significantly increases the potential for fire outbreak as a result of the spontaneous combustion of materials, spark generation or through the magnification and reflection of light is not located in areas of unacceptable bushfire risk.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Pre-schools, educational establishments, hospitals, retirement and supported accommodation are sited away from areas of unacceptable bushfire risk and locations that:</p> <ul style="list-style-type: none"> <li>(a) are remote from or require extended periods of travel to reach safer locations</li> <li>(b) don't have a safe path of travel to safer locations.</li> </ul>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
Siting	
<p>PO 2.1</p> <p>Buildings and structures are located away from areas that pose an unacceptable bushfire risk as a result of vegetation cover and type, and terrain.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
Built Form	
<p>PO 3.1</p> <p>Buildings and structures are designed and configured to reduce the impact of bushfire through using designs that reduce the potential for trapping burning debris against or underneath the building or structure, or between the ground and building floor level in the case of transportable buildings and buildings on stilts.</p>	<p>DTS/DPF 3.1</p> <p>None are applicable.</p>
<p>PO 3.2</p>	<p>DTS/DPF 3.2</p>

Extensions to buildings, outbuildings and other ancillary structures are sited and constructed using materials to minimise the threat of fire spread to residential and tourist accommodation (including boarding houses, hostels, dormitory style accommodation, student accommodation and Workers' accommodation) in the event of bushfire.	Outbuildings and other ancillary structures are sited no closer than 6m from the habitable building.
Habitable Buildings	
PO 4.1 To minimise the threat, impact and potential exposure to bushfires on life and property, residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) is sited on the flatter portion of allotments away from steep slopes.	DTS/DPF 4.1 None are applicable.
PO 4.2 Residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) is sited away from vegetated areas that pose an unacceptable bushfire risk.	DTS/DPF 4.2 Residential and tourist accommodation and habitable buildings for vulnerable communities are provided with asset protection zone(s) in accordance with (a) and (b):  (a) the asset protection zone has a minimum width of at least: (i) 50 metres to unmanaged grasslands (ii) 100 metres to hazardous bushland vegetation  (b) the asset protection zone is contained wholly within the allotment of the development.
PO 4.3 Residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) has a dedicated area available that:  (a) is capable of accommodating a bushfire protection system comprising firefighting equipment and water supply in accordance with <i>Ministerial Building Standard MBS 008 - Designated bushfire prone areas - additional requirements</i>  (b) includes the provision of an all-weather hardstand area in a location that: (i) allows fire-fighting vehicles to safely access the dedicated water supply and exit the site in a forward direction (ii) is no further than 6 metres from the dedicated water supply outlet(s) where required.	DTS/DPF 4.3 None are applicable.
Land Division	
PO 5.1 Land division for residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) is limited to those areas specifically set aside for these uses.	DTS/DPF 5.1 None are applicable.
PO 5.2 Land division is designed and incorporates measures to minimise the danger of fire hazard to residents and occupants of buildings, and to protect buildings and property from physical damage in the event of a bushfire.	DTS/DPF 5.2 None are applicable.
PO 5.3 Land division is designed to provide a continuous street pattern (avoiding the use of dead end roads/cul-de-sac road design) to facilitate the safe movement and evacuation of emergency vehicles, residents, occupants and visitors. Where cul-de-sac / dead end roads are proposed, an alternative emergency evacuation route is provided.	DTS/DPF 5.3 None are applicable.
PO 5.4 Where 10 or more new allotments are proposed, land division includes at least	DTS/DPF 5.4 None are applicable.

<p>two separate and safe exit points to enable multiple avenues of evacuation in the event of a bushfire.</p>	
<p>PO 5.5 Land division provides sufficient space for future asset protection zones and incorporates perimeter roads of adequate design in conjunction with bushfire buffer zones to achieve adequate separation between residential allotments and areas of unacceptable bushfire risk and to support safe access for the purposes of fire-fighting.</p>	<p>DTS/DPF 5.5 None are applicable.</p>
<p>Vehicle Access –Roads, Driveways and Fire Tracks</p>	
<p>PO 6.1 Roads are designed and constructed to facilitate the safe and effective:</p> <ul style="list-style-type: none"> <li>(a) access, operation and evacuation of fire-fighting vehicles and emergency personnel</li> <li>(b) evacuation of residents, occupants and visitors.</li> </ul>	<p>DTS/DPF 6.1 Roads:</p> <ul style="list-style-type: none"> <li>(a) are constructed with a formed, all-weather surface</li> <li>(b) have a gradient of not more than 16 degrees (1-in-3.5) at any point along the road</li> <li>(c) have a cross fall of not more than 6 degrees (1-in-9.5) at any point along the road</li> <li>(d) have a minimum formed road width of 6m</li> <li>(e) provide overhead clearance of not less than 4.0m between the road surface and overhanging branches or other obstructions including buildings and/or structures (Figure 1)</li> <li>(f) allow fire-fighting services (personnel and vehicles) to travel in a continuous forward movement around road curves by constructing the curves with a minimum external radius of 12.5m (Figure 2)</li> <li>(g) incorporating cul-de-sac endings or dead end roads are provided within an alternative evacuation route and do not exceed 200m in length and the end of the road has either:             <ul style="list-style-type: none"> <li>(i) a turning area with a minimum formed surface radius of 12.5m (Figure 3)</li> <li>or</li> <li>(ii) a 'T' or 'Y' shaped turning area with a minimum formed surface length of 11m and minimum internal radii of 9.5m (Figure 4)</li> </ul> </li> <li>(h) incorporate solid, all-weather crossings over any watercourse that support fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes.</li> </ul>
<p>PO 6.2 Access to habitable buildings is designed and constructed to facilitate the safe and effective:</p> <ul style="list-style-type: none"> <li>(a) use, operation and evacuation of fire-fighting and emergency personnel</li> <li>(b) evacuation of residents, occupants and visitors.</li> </ul>	<p>DTS/DPF 6.2 Access is in accordance with (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) a clear and unobstructed vehicle or pedestrian pathway of not greater than 60 metres in length is available between the most distant part of the habitable building and the nearest part of a formed public access road</li> <li>(b) driveways:             <ul style="list-style-type: none"> <li>(i) do not exceed 600m in length</li> <li>(ii) are constructed with a formed, all-weather surface</li> <li>(iii) are connected to a formed, all-weather public road with the transition area between the road and driveway having a gradient of not more than 7 degrees (1-in-8)</li> <li>(iv) have a gradient of not more than 16 degrees (1-in-3.5) at any point along the driveway</li> <li>(v) have a crossfall of not more than 6 degrees (1-in-9.5) at any point along the driveway</li> <li>(vi) have a minimum formed width of 3m (4m where the gradient of the driveway is steeper than 12 degrees (1-in-4.5)) plus 0.5 metres clearance either side of the driveway from overhanging branches or other obstructions, including buildings and/or structures (Figure 1)</li> <li>(vii) incorporate passing bays with a minimum width of 6m and length of 17m every 200m (Figure 5)</li> <li>(viii) provide overhead clearance of not less than 4.0m between the driveway surface and overhanging branches or other obstructions, including buildings and/or structures (Figure 1)</li> <li>(ix) allow fire-fighting services (personnel and vehicles) to travel in a continuous forward movement around driveway curves by constructing the curves with a minimum external radius of</li> </ul> </li> </ul>

	<p>12.5m (Figure 2)</p> <p>(x) allow fire-fighting vehicles to safely enter and exit an allotment in a forward direction by using a 'U' shaped drive through design or by incorporating at the end of the driveway either:</p> <p>A. a loop road around the building or</p> <p>B. a turning area with a minimum radius of 12.5m (Figure 3) or</p> <p>C. a 'T' or 'Y' shaped turning area with a minimum formed length of 11m and minimum internal radii of 9.5m (Figure 4)</p> <p>(xi) incorporate solid, all-weather crossings over any watercourse that support fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes.</p>
PO 6.3 Development does not rely on fire tracks as means of evacuation or access for fire-fighting purposes unless there are no safe alternatives available.	DTS/DPF 6.3 None are applicable.

### Procedural Matters (PM) - Referrals

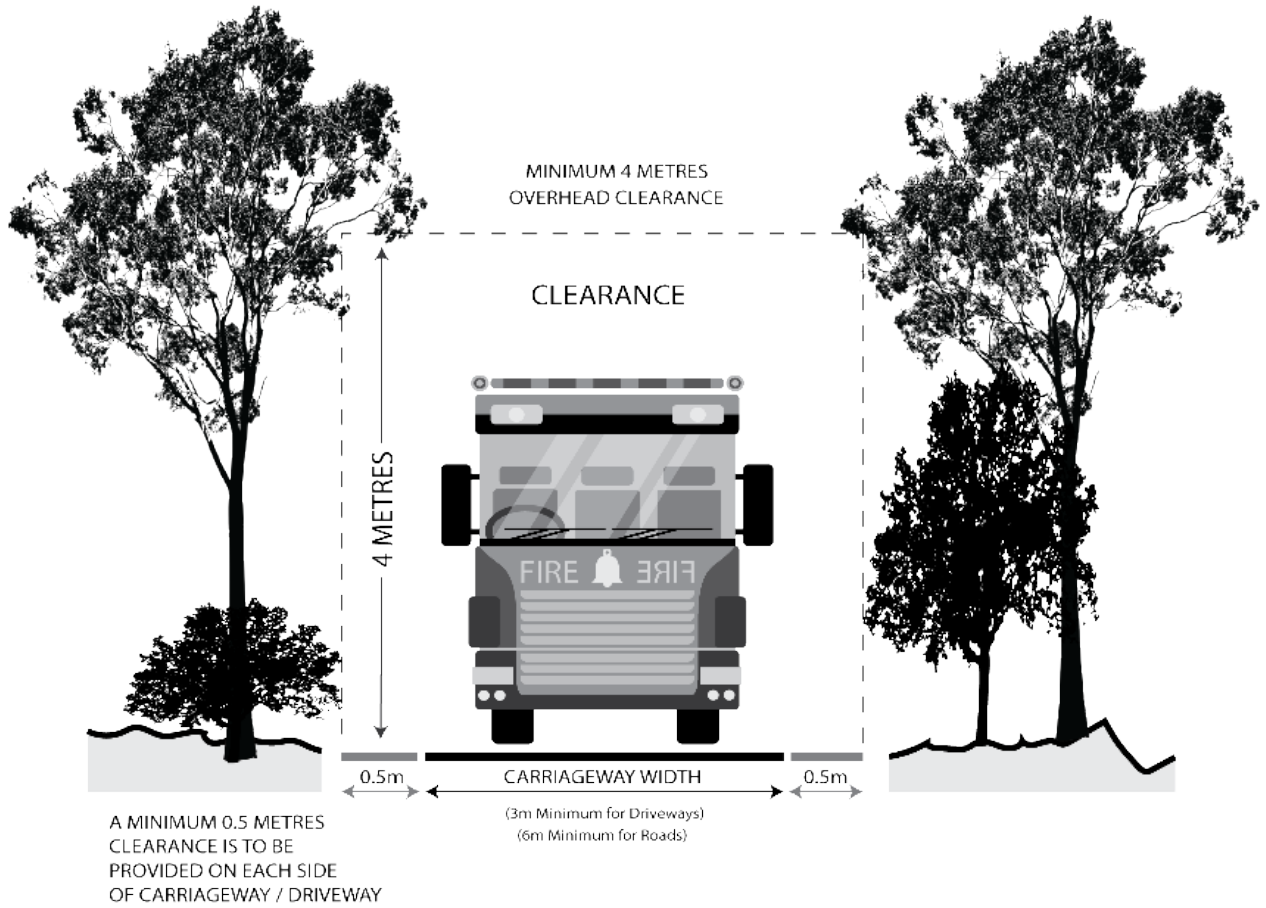
The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Except if a <b>relevant certificate</b> accompanies the application for planning consent in respect of the development, any of the following classes of development (including alterations and additions which increase the floor area of such buildings by 10% or more):</p> <p>(a) land division creating one or more additional allotments (b) dwelling (c) ancillary accommodation (d) residential flat building (e) tourist accommodation (f) boarding home (g) dormitory style accommodation (h) workers' accommodation (i) student accommodation (j) pre-school (k) educational establishment (l) retirement village (m) supported accommodation (n) residential park (o) hospital (p) camp ground.</p>	South Australian Country Fire Service.	To provide expert assessment and direction to the relevant authority on the potential impacts of bushfire on the development.	Development of a class to which Schedule 9 clause 3 item 2 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

### Figures and Diagrams

#### Fire Appliance Clearances

Figure 1 - Overhead and Side Clearances



Roads and Driveway Design

Figure 2 - Road and Driveway Curves

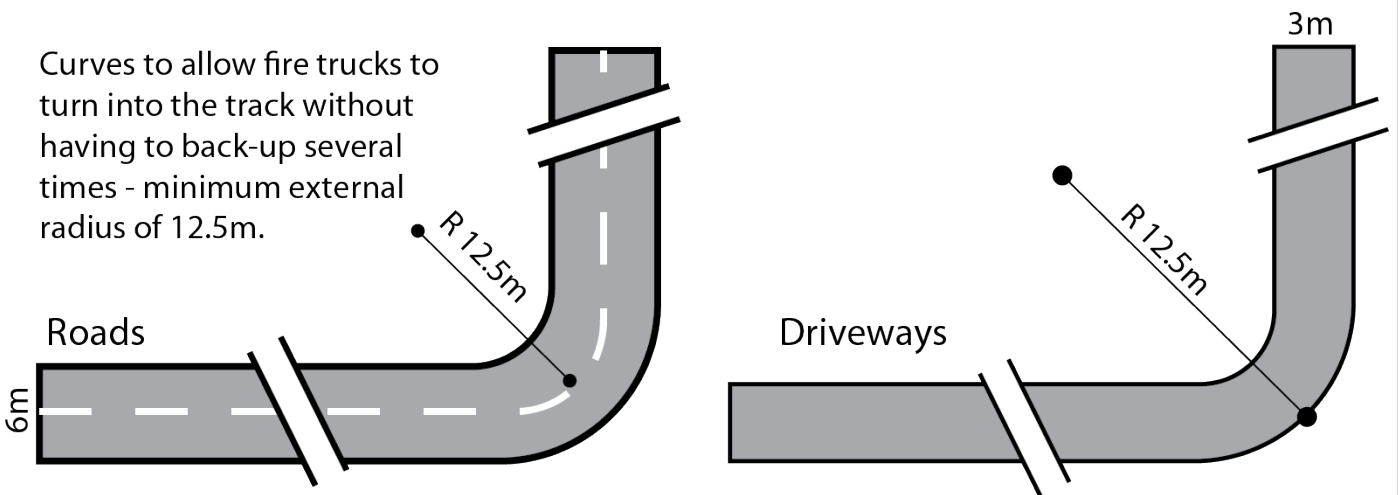
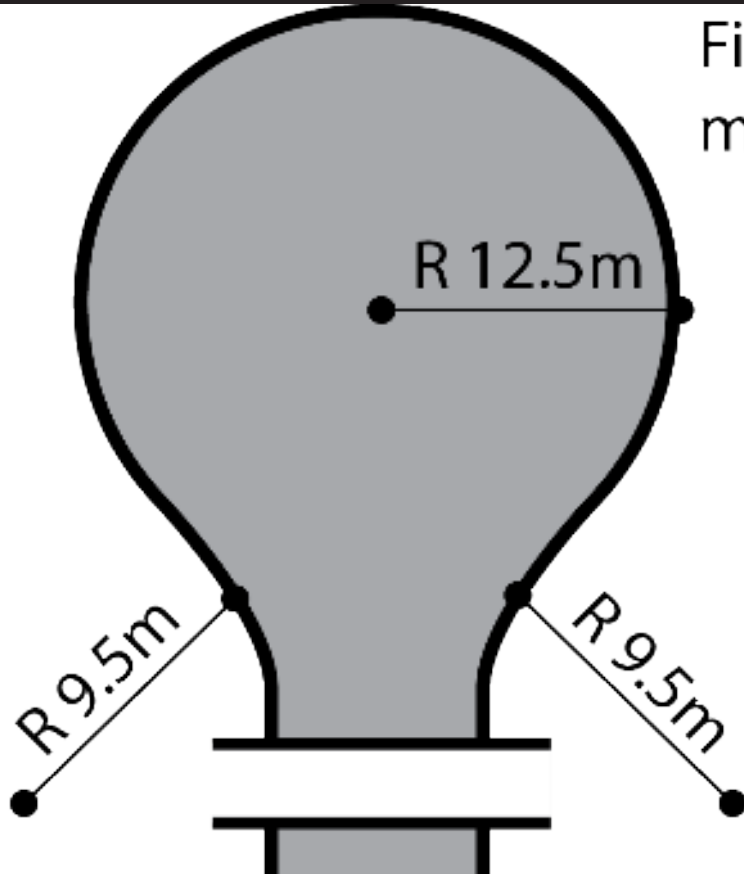
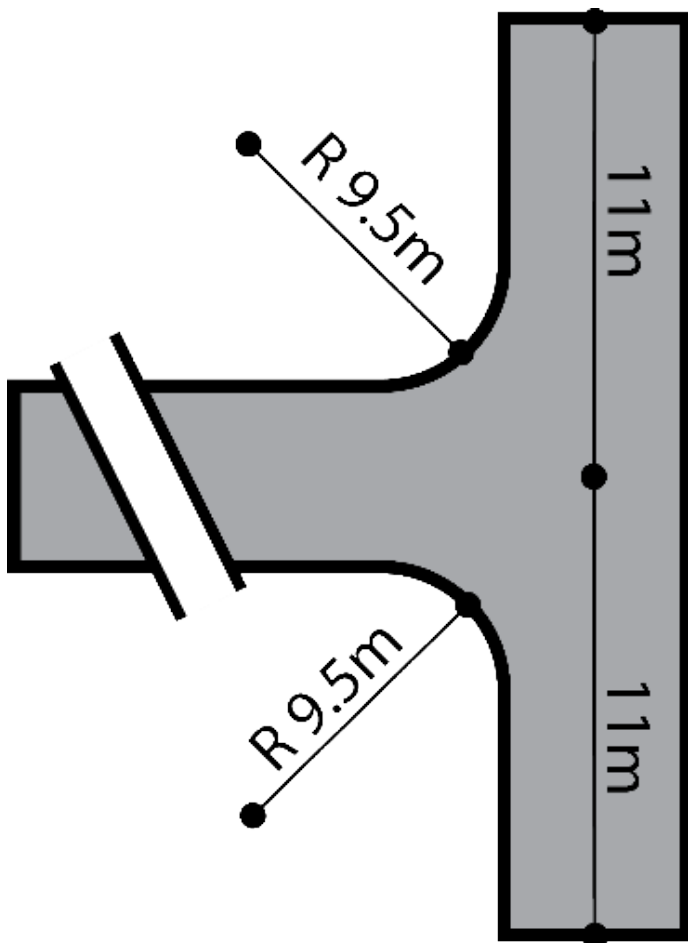


Figure 3 - Full Circle Turning Area



Fire truck turning area -  
minimum radius 12.5m

Figure 4 - 'T' or 'Y' Shaped Turning Head



"T" shaped turning area  
for fire trucks to reverse  
into so they can turn  
around  
- minimum length 11m.

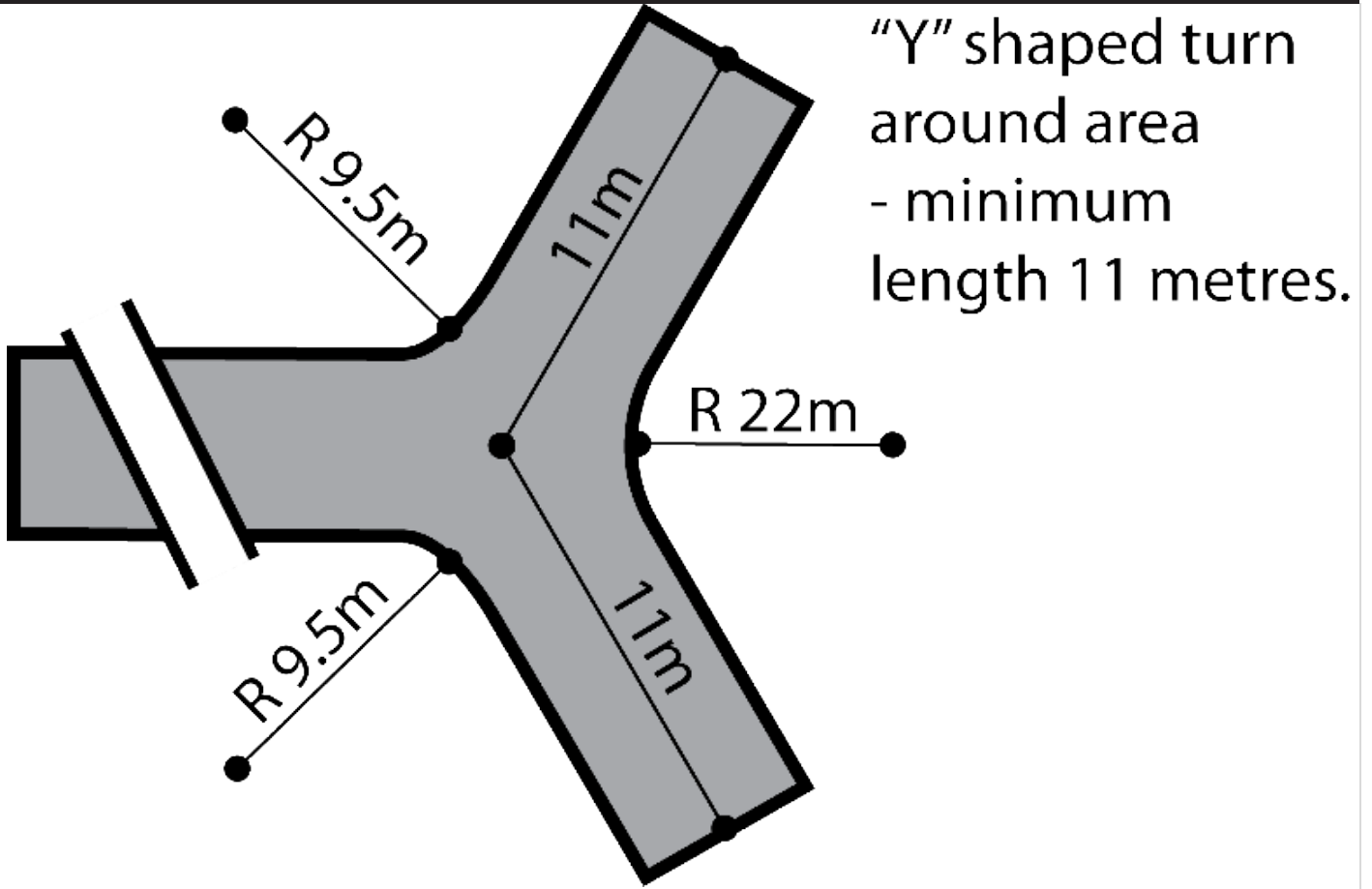
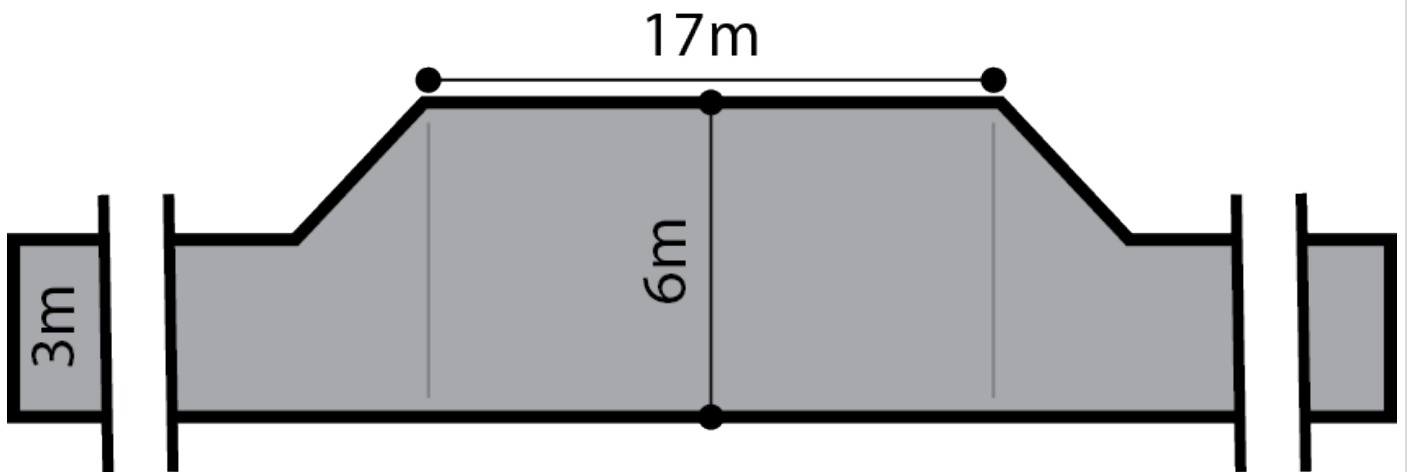


Figure 5 - Driveway Passing Bays

Passing bay for fire trucks - minimum width 6 metres, minimum length 17 metres.



Hazards (Flooding) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Impacts on people, property, infrastructure and the environment from high flood risk are minimised by retaining areas free from development, and minimising intensification where development has occurred.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Division	
PO 1.1 Land division is limited to areas where the consequences to buildings and safety are low and can be readily managed or overcome.	DTS/DPF 1.1 None are applicable.
Land Use	
PO 2.1 Development sited and designed to minimise exposure of people and property to unacceptable flood risk.	DTS/DPF 2.1 None are applicable.
PO 2.2 Buildings housing vulnerable people, community services facilities, key infrastructure and emergency services are sited away from flood prone areas to enable uninterrupted operation of services and reduce likelihood of entrapment.	DTS/DPF 2.2 Pre-schools, educational establishments, retirement and supported accommodation, emergency services facilities, hospitals and prisons are not located within the Overlay area.
Flood Resilience	
PO 3.1 Development avoids the need for flood protection works.	DTS/DPF 3.1 None are applicable.
PO 3.2 Development does not cause unacceptable impacts on any adjoining property by the diversion of flood waters or an increase in flood velocity or flood level.	DTS/DPF 3.2 None are applicable.
PO 3.3 Development does not impede the flow of floodwaters through the allotment or the surrounding land, or cause an unacceptable loss of flood storage.	DTS/DPF 3.3 None are applicable.
PO 3.4 Development avoids frequently flooded or high velocity areas, other than where it is part of a flood mitigation scheme to reduce flood impact.	DTS/DPF 3.4 Other than a recreation area, development is located outside of the 5% AEP principal flow path.
PO 3.5 Buildings are sited, designed and constructed to prevent the entry of floodwaters in a 1% AEP flood event where the entry of floodwaters is likely to result in undue damage to, or compromise ongoing activities within, buildings.	DTS/DPF 3.5 Buildings comprise one of the following: <ul style="list-style-type: none"> <li>(a) a porch or portico with at least 2 open sides</li> <li>(b) a verandah with at least 3 open sides</li> <li>(c) a carport or outbuilding with at least 2 open sides (whichever elevations face the direction of the flow)</li> <li>(d) any post construction with open sides</li> <li>(e) a building with a finished floor level that is at least 300mm above the height of a 1% AEP flood event.</li> </ul>



PO 3.6 Fences do not unreasonably impede floodwaters.	DTS/DPF 3.6 A post and wire fence (other than a chain mesh fence).
Environmental Protection	
PO 4.1 Buildings and structures used either partly or wholly to contain or store hazardous materials are designed to prevent spills or leaks leaving the confines of the building during a 1% AEP flood event to avoid potential environmental harm.	DTS/DPF 4.1 Development involving the storage or disposal of hazardous materials is wholly located outside of the 1% AEP flood plain or flow path.
PO 4.2 Development does not create or aggravate the potential for erosion or siltation or lead to the destruction of vegetation during a flood.	DTS/DPF 4.2 None are applicable.
Site Earthworks	
PO 5.1 The depth and extent of filling required to raise the finished floor level of a building does not cause unacceptable impact on any adjoining property by diversion of flood waters, an increase in flood velocity or flood level, or an unacceptable loss of flood storage.	DTS/DPF 5.1 None are applicable.
PO 5.2 Driveways, access tracks and parking areas are designed and constructed to minimise excavation and filling.	DTS/DPF 5.2 Filling for ancillary purposes:  (a) does not exceed 300mm above existing ground level (b) is no more than 5m wide.
Access	
PO 6.1 Development does not occur on land:  (a) from which evacuation to areas not vulnerable to flood risk is not possible during a 1% AEP flood event (b) which cannot be accessed by emergency services vehicles or essential utility service vehicles during a 1% AEP flood event.	DTS/DPF 6.1 None are applicable.
PO 6.2 Access driveways and tracks to significant development (i.e. dwellings, places of work, etc.) consist of a safe, all-weather trafficable surface that is accessible during a 1% AEP flood event.	DTS/DPF 6.2 None are applicable.

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

### Hazards (Flooding – General) Overlay

#### Assessment Provisions (AP)

Desired Outcome (DO)

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## Desired Outcome

DO 1	Impacts on people, property, infrastructure and the environment from general flood risk are minimised through the appropriate siting and design of development.
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Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use	
PO 1.1 Buildings housing vulnerable people, community services facilities, key infrastructure and emergency services are sited away from flood areas enable uninterrupted operation of services and reduce likelihood of entrapment.	DTS/DPF 1.1 Pre-schools, educational establishments, retirement and supported accommodation, emergency services facilities, hospitals and prisons located outside the 1% AEP flood event.
Flood Resilience	
PO 2.1 Development is sited, designed and constructed to prevent the entry of floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.	DTS/DPF 2.1 Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished ground and floor level not less than:  In instances where no finished floor level value is specified, a building incorporates a finished floor level at least 300mm above the height of a 1% AEP flood event.
Environmental Protection	
PO 3.1 Buildings and structures used either partly or wholly to contain or store hazardous materials are designed to prevent spills or leaks leaving the confines of the building during a 1% AEP flood event to avoid potential environmental harm.	DTS/DPF 3.1 Development involving the storage or disposal of hazardous materials is wholly located outside of the 1% AEP flood plain or flow path.

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

### Hazards (Flooding - Evidence Required) Overlay

#### Assessment Provisions (AP)

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Flood Resilience	
DTS/DPF 1.1 Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above:	

(a) the highest point of top of kerb of the primary street or (b) the highest point of natural ground level at the primary street boundary where there is no kerb	
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**Key Railway Crossings Overlay**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Safe, efficient and uninterrupted operation of key railway crossings.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Access, Design and Function	
PO 1.1 Site access does not interfere or impact on the safe operation of a railway crossing.	DTS/DPF 1.1 Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing: <ul style="list-style-type: none"> <li>(a) 110 km/h road - 190m</li> <li>(b) 100 km/h road - 165m</li> <li>(c) 90 km/h road - 140m</li> <li>(d) 80 km/h road - 110m</li> <li>(e) 70 km/h road - 90m</li> <li>(f) 60 km/h road - 70m</li> <li>(g) 50km/h or less road - 50m</li> </ul>

**Procedural Matters (PM) - Referrals**

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

**Limited Land Division Overlay**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	The long term use of land for primary production is maintained by minimising fragmentation through division of land.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Land division does not result in the creation of an additional allotment.	DTS/DPF 1.1 No additional allotments are created.
PO 1.2 Land division involving boundary realignments occurs only where the number of resulting allotments with a site area less than that specified in the relevant Zone is not greater than the number that existed prior to the realignment.	DTS/DPF 1.2 None are applicable.

**Procedural Matters (PM) - Referrals**

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

**Mount Lofty Ranges Water Supply Catchment (Area 1) Overlay**

**Assessment Provisions (AP)**

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Wastewater	
DTS/DPF 2.4 All components of an effluent disposal area are:  (a) set back 50 metres or more from a watercourse (b) set back 100 metres or more from a public water supply reservoir (c) located on land with a slope no greater than 1-in-5 (20%) (d) located on land with 1.2m or more depth to bedrock or a seasonal or permanent water table (e) above the 10% AEP flood level.	Stormwater
DTS/DPF 3.4 Development includes:  (a) rainwater tanks with a minimum capacity of 1,000L connected to carports, verandahs and outbuildings or (b) rainwater tanks with a minimum capacity of 4,500L	DTS/DPF 3.5 Dwelling additions are connected to a rainwater tank with a minimum capacity of 1,000L.

connected to agricultural buildings exceeding 100m <sup>2</sup> .	
<p>DTS/DPF 3.6</p> <p>Shops and tourist accommodation satisfy all the following:</p> <ul style="list-style-type: none"> <li>(a) are located 50m or more from watercourses, wetlands, land prone to waterlogging and bores</li> <li>(b) are located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) are located on land with a slope not exceeding 20%</li> <li>(d) includes buildings connected to rainwater tanks with a minimum capacity of 1,000L</li> <li>(e) includes swales that divert clean stormwater away from areas where it could be polluted.</li> </ul>	<p>DTS/DPF 3.9</p> <p>Excavation and/or filling satisfy all the following:</p> <ul style="list-style-type: none"> <li>(a) is located 50m or more from watercourses</li> <li>(b) is located 100m or more from public water supply reservoirs and diversion weirs</li> <li>(c) does not involve excavation exceeding a vertical height of 0.75m</li> <li>(d) does not involve filling exceeding a vertical height of 0.75m</li> <li>(e) does not involve a total combined excavation and filling vertical height of 1.5m.</li> </ul>

**Mount Lofty Ranges Water Supply Catchment (Area 2) Overlay**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Safeguard Greater Adelaide's public water supply by ensuring development has a neutral or beneficial effect on the quality of water harvested from secondary reservoirs or diversion weir catchments from the Mount Lofty Ranges.

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Water Quality	
<p>PO 1.1</p> <p>Development results in a neutral or beneficial effect on the quality of water draining from the site to maintain and enhance the role of the catchment as a water supply.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Development does not include land uses that have the potential to cause adverse impacts on the quality of water draining into secondary public water supply reservoirs and weirs.</p>	<p>DTS/DPF 1.2</p> <p>Development does not involve any one or combination of the following:</p> <ul style="list-style-type: none"> <li>(a) landfill</li> <li>(b) special industry.</li> </ul>
Wastewater	
<p>PO 2.1</p> <p>Development that generates human wastewater, including alterations and additions, are established at an intensity and in a manner to minimise potential adverse impact on water quality within secondary reservoir and weir catchment areas.</p>	<p>DTS/DPF 2.1</p> <p>Development including alterations and additions, in combination with existing built form and activities within an allotment:</p> <ul style="list-style-type: none"> <li>(a) do not generate a combined total of more than 1500 litres of wastewater per day</li> <li>and</li> <li>(b) will be connected to the same on-site wastewater system that is compliant with relevant South Australian standards</li> </ul> <p>or is otherwise connected to a sewer or community wastewater management</p>

	system.
PO 2.2 Dairy development is of a scale and design that will avoid adverse water quality impacts.	DTS/DPF 2.2 Dairy development satisfies all of the following:  (a) is located at least 100 metres from any watercourse, dam, bore or well (b) is connected to a wastewater management system that is located 200 metres from any watercourse, dam, bore or well and is designed and constructed to avoid leakage to groundwater or overflow under extreme rainfall conditions (c) treated wastewater irrigation areas: (i) have a slope of less than 1-in-5 (20 percent) (ii) are greater than 100 metres from any watercourse, dam, bore or well  are suitable to provide for seasonal wastewater irrigation without causing pollution of surface or groundwater.
PO 2.3 Development that generates trade or industrial wastewater is of a scale and design to ensure wastewater is managed to avoid adverse water quality impacts.	DTS/DPF 2.3 Development that generates trade or industrial wastewater with a peak biological oxygen demand (BOD) of greater than 100 milligrams per litre satisfies the following: (a) disposes of all wastewater to a sewerage or community wastewater management system, or (b) operates at a scale that generates less than 5 million litres of wastewater per year, and (i) is located greater than 300 metres from a watercourse, dam, bore or well, except where a spill retention basin is constructed, in which case, the minimum setback to a watercourse, dam, bore or well is 50 metres, and (ii) a development that incorporates a spill retention basin(s) for the purpose of reducing the setback to a watercourse, dam, bore or well, has basins designed and located: A. to minimise the risk of spills entering a downgradient watercourse, dam, bore of well B. in close proximity to wine making, wine storage and wastewater treatment facilities C. to capture 120% of the maximum aggregate volume of liquid raw materials, product and untreated wastewater which can be contained or produced at any one time during the peak of operation D. to be impervious; and E. to minimise the interception of any natural or artificial stormwater flow.
PO 2.4 Wastewater management systems result in a neutral or beneficial effect on the quality of water draining from the site.	DTS/DPF 2.4 Development results in:  (a) a building or land use that is currently connected to an existing on-site wastewater system that is non-compliant with relevant South Australian standards being connected to a new or upgraded system that complies with such standards or (b) an existing on-site wastewater system being decommissioned and wastewater being disposed of to a sewer or community wastewater management system that complies with relevant South Australian standards.
PO 2.5 Surface and groundwater protected from wastewater discharge pollution.	DTS/DPF 2.5 All components of an effluent disposal area are:  (a) setback 50 metres or more from a watercourse (b) setback 100 metres or more from a public water supply reservoir (c) located on land with a slope no greater than 1-in-5 (20%) (d) located on land with 1.2m or more depth to bedrock or a seasonal or permanent water table (e) above the 10% AEP flood level.

Stormwater	
PO 3.1 Post-development peak stormwater discharge quantities and rates do not exceed pre-development quantities and rates to maintain water quality leaving the site.	DTS/DPF 3.1 None are applicable.
PO 3.2 Stormwater run-off from areas not likely to be subject to pollution diverted away from areas that could cause pollution.	DTS/DPF 3.2 None are applicable.
PO 3.3 Polluted stormwater is treated prior to discharge from the site.	DTS/DPF 3.3 None are applicable.
PO 3.4 Stormwater from carports, verandahs, outbuildings and agricultural buildings captured to protect water quality.	DTS/DPF 3.4 Development includes:  (a) rainwater tanks with a minimum capacity of 1,000L connected to carports, verandahs and outbuildings or (b) rainwater tanks with a minimum capacity of 4,500L connected to agricultural buildings exceeding 100m <sup>2</sup> .
PO 3.5 Stormwater from dwelling additions captured to protect water quality.	DTS/DPF 3.5 Dwelling additions are connected to a rainwater tank with a minimum capacity of 1,000L.
PO 3.6 Stormwater from shops and tourist accommodation is managed to protect water quality.	DTS/DPF 3.6 Shops and tourist accommodation satisfy all the following:  (a) are located 50m or more from watercourses, wetlands, land prone to waterlogging and bores (b) are located 100m or more from public water supply reservoirs and diversion weirs (c) are located on land with a slope not exceeding 20% (d) includes buildings connected to rainwater tanks with a minimum capacity of 1,000L (e) includes swales that divert clean stormwater away from areas where it could be polluted.
PO 3.7 Stormwater from horse keeping and low intensity animal husbandry is managed to protect water quality.	DTS/DPF 3.7 Horse keeping and low intensity animal husbandry satisfy all the following:  (a) is located 50m or more from watercourses, wetlands, land prone to waterlogging and bores (b) is located on land with a slope not exceeding 10% (c) includes stables, shelters or other roofed structures connected to rainwater tanks with a minimum capacity of 1,000L (d) includes swales that divert clean stormwater away from areas (including yards, manure storage areas, and watering points) within which it could be polluted.
PO 3.8 Stormwater from horticulture is managed to protect water quality.	DTS/DPF 3.8 Horticulture satisfies all the following:  (a) is located 50m or more from watercourses, wetlands, land prone to waterlogging and bores (b) is located 100m or more from public water supply reservoirs and diversion weirs (c) is located on land with a slope not exceeding 10% (d) includes swales or other structures that divert clean stormwater away from areas (including plant growing areas, chemical storage areas and plant waste storage areas) within which it could be polluted.

PO 3.9 Stormwater from excavated and filled areas is managed to protect water quality.	DTS/DPF 3.9 Excavation and/or filling satisfy all the following:  (a) is located 50m or more from watercourses (b) is located 100m or more from public water supply reservoirs and diversion weirs (c) does not involve excavation exceeding a vertical height of 0.75m (d) does not involve filling exceeding a vertical height of 0.75m (e) does not involve a total combined excavation and filling vertical height of 1.5m.
Landscapes and Natural Features	
PO 4.1 Development minimises the need to modify landscapes and natural features.	DTS/DPF 4.1 None are applicable.
Land Division	
PO 5.1 Land division does not result in an increased risk of pollution to surface or underground water.	DTS/DPF 5.1 Land division does not create additional allotments and satisfies (a) and/or (b):  (a) is for realignment of allotment boundaries to correct an anomaly in the placement of those boundaries with respect to the location of existing buildings or structures or (b) is for realignment of allotment boundaries in order to improve management of the land for primary production and/or conservation of natural features.
PO 5.2 Realignment of allotment boundaries does not create development potential for a dwelling and associated onsite wastewater management system where no such potential currently exists.	DTS/DPF 5.2 None are applicable.

### Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Any of the following classes of development that are not connected (or not proposed to be connected) to a community wastewater management system or sewerage infrastructure:</p> <ul style="list-style-type: none"> <li>(a) land division creating one or more additional allotments, either partly or wholly within the area of the overlay</li> <li>(b) function centre with more than 75 seats for customer dining purposes</li> <li>(c) restaurant with more than 40 seats for customer dining purposes</li> <li>(d) restaurant with more than 30 seats for customer dining purposes in association with a cellar door</li> <li>(e) dwelling where a habitable dwelling or tourist accommodation already exists on the same allotment (including where a valid planning authorisation exists to erect a dwelling or tourist accommodation on the same allotment)</li> <li>(f) tourist accommodation where a habitable dwelling or tourist accommodation already exists on the same allotment (including where a valid planning authorisation exists to erect a habitable dwelling or tourist accommodation on the same allotment)</li> <li>(g) workers' accommodation where a habitable dwelling or tourist accommodation already exists on the same</li> </ul>	Environment Protection Authority.	To provide expert technical assessment and direction to the relevant authority on whether a proposed development will have a neutral or beneficial impact on water quality.	Development of a class to which Schedule 9 clause 3 item 9 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.



allotment (including where a valid planning authorisation exists to erect a habitable dwelling or tourist accommodation on the same allotment) (h) any other development that generates human wastewater from a peak loading capacity of more than 40 persons (or more than 6,000 litres/day)			
Composting works (excluding a prescribed approved activity) - being a depot, facility or works with the capacity to treat, during a 12 month period more than 200 tonnes of organic waste or matter (EPA Licence)			
Wastewater treatment works - being sewage treatment works, a community wastewater management system, winery wastewater treatment works or any other wastewater treatment works with the capacity to treat, during a 12 month period more than 2.5 ML of wastewater (EPA Licence required at more than 5ML)			
Feedlots - being carrying on an operation for holding in confined yard or area and feeding principally by mechanical means or by hand not less than an average of 200 cattle (EPA Licence) or 1,600 sheep or goats per day over any period of 12 months, but excluding any such operation carried on at an abattoir, slaughterhouse or saleyard or for the purpose only of drought or other emergency feeding			
Piggeries - being the conduct of a piggery (being premises having confined or roofed structures for keeping pigs) with a capacity of 130 or more standard pig units (EPA Licence required at 650 or more standard pig units)			
Dairies - carrying on of a dairy with a total processing capacity exceeding 100 milking animals at any one time.			

**Native Vegetation Overlay**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Areas of native vegetation are protected, retained and restored in order to sustain biodiversity, threatened species and vegetation communities, fauna habitat, ecosystem services, carbon storage and amenity values.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Environmental Protection	
PO 1.1	DTS/DPF 1.1

<p>Development avoids, or where it cannot be practically avoided, minimises the clearance of native vegetation taking into account the siting of buildings, access points, bushfire protection measures and building maintenance.</p>	<p>An application is accompanied by:</p> <ul style="list-style-type: none"> <li>(a) a declaration stating that the proposal will not, or would not, involve clearance of native vegetation under the Native Vegetation Act 1991, including any clearance that may occur:                         <ul style="list-style-type: none"> <li>(i) in connection with a relevant access point and / or driveway</li> <li>(ii) within 10m of a building (other than a residential building or tourist accommodation)</li> <li>(iii) within 20m of a dwelling or addition to an existing dwelling for fire prevention and control</li> <li>(iv) within 50m of residential or tourist accommodation in connection with a requirement under a relevant overlay to establish an asset protection zone in a bushfire prone area</li> </ul> </li> <li>or</li> <li>(b) a report prepared in accordance with Regulation 18(2)(a) of the Native Vegetation Regulations 2017 that establishes that the clearance is categorised as 'Level 1 clearance'.</li> </ul>
<p>PO 1.2</p> <p>Native vegetation clearance in association with development avoids the following:</p> <ul style="list-style-type: none"> <li>(a) significant wildlife habitat and movement corridors</li> <li>(b) rare, vulnerable or endangered plants species</li> <li>(c) native vegetation that is significant because it is located in an area which has been extensively cleared</li> <li>(d) native vegetation that is growing in, or in association with, a wetland environment.</li> </ul>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
<p>PO 1.3</p> <p>Intensive animal husbandry and agricultural activities are sited, set back and designed to minimise impacts on native vegetation, including impacts on native vegetation in an adjacent State Significant Native Vegetation Area, from:</p> <ul style="list-style-type: none"> <li>(a) the spread of pest plants and phytosphora</li> <li>(b) the spread of non-indigenous plants species</li> <li>(c) excessive nutrient loading of the soil or loading arising from surface water runoff</li> <li>(d) soil compaction</li> <li>(e) chemical spray drift.</li> </ul>	<p>DTS/DPF 1.3</p> <p>Development within 500 metres of a boundary of a State Significant Native Vegetation Area does not involve any of the following:</p> <ul style="list-style-type: none"> <li>(a) horticulture</li> <li>(b) intensive animal husbandry</li> <li>(c) dairy</li> <li>(d) commercial forestry</li> <li>(e) aquaculture.</li> </ul>
<p>PO 1.4</p> <p>Development restores and enhances biodiversity and habitat values through revegetation using locally indigenous plant species.</p>	<p>DTS/DPF 1.4</p> <p>None are applicable.</p>
<p>Land division</p>	
<p>PO 2.1</p> <p>Land division does not result in the fragmentation of land containing native vegetation, or necessitate the clearance of native vegetation, unless such clearance is considered minor, taking into account the location of allotment boundaries, access ways, fire breaks, boundary fencing and potential building siting or the like.</p>	<p>DTS/DPF 2.1</p> <p>Land division where:</p> <ul style="list-style-type: none"> <li>(a) an application is accompanied by one of the following:                         <ul style="list-style-type: none"> <li>(i) a declaration stating that none of the allotments in the proposed plan of division contain native vegetation under the <i>Native Vegetation Act 1991</i></li> <li>(ii) a declaration stating that no native vegetation clearance under the <i>Native Vegetation Act 1991</i> will be required as a result of the division of land</li> <li>(iii) a report prepared in accordance with Regulation 18(2)(a) of the Native Vegetation Regulations 2017 that establishes that the vegetation to be cleared is categorised as 'Level 1 clearance'</li> </ul> </li> <li>or</li> <li>(b) an application for land division which is being considered concurrently with a proposal to develop each allotment which will satisfy, or would satisfy, the requirements of DTS/DPF 1.1, including any clearance that may occur</li> <li>or</li> <li>(c) the division is to support a Heritage Agreement under the Native</li> </ul>

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development that is the subject of a report prepared in accordance with Regulation 18(2)(a) of the <i>Native Vegetation Regulations 2017</i> that categorises the clearance, or potential clearance, as 'Level 3 clearance' or 'Level 4 clearance'.	Native Vegetation Council	To provide expert assessment and direction to the relevant authority on the potential impacts of development on native vegetation.	Development of a class to which Schedule 9 clause 3 item 11 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

### Prescribed Water Resources Area Overlay

#### Assessment Provisions (AP)

Desired Outcome (DO)

#### Desired Outcome

DO 1	Sustainable water use in prescribed surface water resources areas maintains the health and natural flow paths of water courses.
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Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>All development, but in particular development involving any of the following:</p> <ul style="list-style-type: none"> <li>(a) horticulture</li> <li>(b) activities requiring irrigation</li> <li>(c) aquaculture</li> <li>(d) industry</li> <li>(e) intensive animal husbandry</li> <li>(f) commercial forestry</li> </ul> <p>has a lawful, sustainable and reliable water supply that does not place undue strain on water resources in prescribed surface water areas.</p>	<p>DTS/DPF 1.1</p> <p>Development satisfies either of the following:</p> <ul style="list-style-type: none"> <li>(a) the applicant has a current water licence in which sufficient spare capacity exists to accommodate the water needs of the proposed use or</li> <li>(b) the proposal does not involve the taking of water for which a licence would be required under the <i>Landscape South Australia Act 2019</i>.</li> </ul>
<p>PO 1.2</p> <p>Development comprising the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>

divert surface water flowing over land is undertaken in a manner that maintains the quality and quantity of flows required to meet the needs of the environment as well as downstream users.

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development that comprises the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert, or collects or diverts surface water flowing over land.	Relevant authority under the <i>Landscape South Australia Act 2019</i> that would, if it were not for the operation of section 106(1)(e) of that Act, have the authority under that Act to grant or refuse a permit to undertake the subject development.	To provide expert assessment and direction to the relevant authority on potential impacts from development on the health, sustainability and/or natural flow paths of water resources in accordance with the provisions of the relevant water allocation plan or regional landscape plan or equivalent.	Development of a class to which Schedule 9 clause 3 item 12 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.
Any of the following classes of development: <ul style="list-style-type: none"> <li>(a) horticulture</li> <li>(b) activities requiring irrigation</li> <li>(c) aquaculture</li> <li>(d) industry</li> <li>(e) intensive animal husbandry</li> <li>(f) commercial forestry</li> </ul>	The Chief Executive of the Department of the Minister responsible for the administration of the <i>Landscape South Australia Act 2019</i> .	To provide expert technical assessment and direction to the relevant authority on the taking of water to ensure development is undertaken sustainably and maintains the health and natural flow paths of water resources.	Development of a class to which Schedule 9 clause 3 item 13 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.
Commercial forestry that requires a forest water licence under Part 8 Division 6 of the <i>Landscape South Australia Act 2019</i> .			

### Traffic Generating Development Overlay

#### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Safe and efficient operation of Urban Transport Routes and Major Urban Transport Routes for all road users.
DO 2	Provision of safe and efficient access to and from urban transport routes and major urban transport routes.

Performance Outcomes (PO) and Deemed to Satisfy (DTS) / Designated Performance Feature (DPF) Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Traffic Generating Development	
PO 1.1 Development designed to minimise its potential impact on the safety, efficiency and functional performance of the State Maintained Road network.	DTS/DPF 1.1 Access is obtained directly from a State Maintained Road where it involves any of the following types of development: <ul style="list-style-type: none"> <li>(a) land division creating 50 or more additional allotments</li> <li>(b) commercial development with a gross floor area of 10,000m<sup>2</sup> or more</li> <li>(c) retail development with a gross floor area of 2,000m<sup>2</sup> or more</li> <li>(d) a warehouse or transport depot with a gross leasable floor area of 8,000m<sup>2</sup> or more</li> <li>(e) industry with a gross floor area of 20,000m<sup>2</sup> or more</li> <li>(f) educational facilities with a capacity of 250 students or more.</li> </ul>
PO 1.2 Access points sited and designed to accommodate the type and volume of traffic likely to be generated by development.	DTS/DPF 1.2 Access is obtained directly from a State Maintained Road where it involves any of the following types of development: <ul style="list-style-type: none"> <li>(a) land division creating 50 or more additional allotments</li> <li>(b) commercial development with a gross floor area of 10,000m<sup>2</sup> or more</li> <li>(c) retail development with a gross floor area of 2,000m<sup>2</sup> or more</li> <li>(d) a warehouse or transport depot with a gross leasable floor area of 8,000m<sup>2</sup> or more</li> <li>(e) industry with a gross floor area of 20,000m<sup>2</sup> or more</li> <li>(f) educational facilities with a capacity of 250 students or more.</li> </ul>
PO 1.3 Sufficient accessible on-site queuing provided to meet the needs of the development so that queues do not impact on the State Maintained Road network.	DTS/DPF 1.3 Access is obtained directly from a State Maintained Road where it involves any of the following types of development: <ul style="list-style-type: none"> <li>(a) land division creating 50 or more additional allotments</li> <li>(b) commercial development with a gross floor area of 10,000m<sup>2</sup> or more</li> <li>(c) retail development with a gross floor area of 2,000m<sup>2</sup> or more</li> <li>(d) a warehouse or transport depot with a gross leasable floor area of 8,000m<sup>2</sup> or more</li> <li>(e) industry with a gross floor area of 20,000m<sup>2</sup> or more</li> <li>(f) educational facilities with a capacity of 250 students or more.</li> </ul>

### Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Except where all of the relevant deemed-to-satisfy criteria are met, any of the following classes of development that are proposed within 250m of a State Maintained Road: <ul style="list-style-type: none"> <li>(a) land division creating 50 or more additional allotments</li> <li>(b) commercial development with a gross floor area of 10,000m<sup>2</sup> or more</li> <li>(c) retail development with a gross floor area of 2,000m<sup>2</sup> or more</li> <li>(d) a warehouse or transport depot with a gross leasable floor area of 8,000m<sup>2</sup> or more</li> <li>(e) industry with a gross floor area of 20,000m<sup>2</sup> or more</li> <li>(f) educational facilities with a capacity of 250 students or</li> </ul>	Commissioner of Highways.	To provide expert technical assessment and direction to the Relevant Authority on the safe and efficient operation and management of all roads relevant to the Commissioner of Highways as described in the Planning and Design Code.	Development of a class to which Schedule 9 clause 3 item 7 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

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## Urban Transport Routes Overlay

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Safe and efficient operation of Urban Transport Routes for all road users.
DO 2	Provision of safe and efficient access to and from Urban Transport Routes.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Access - Safe Entry and Exit (Traffic Flow)	
<p>PO 1.1</p> <p>Access is designed to allow safe entry and exit to and from a site to meet the needs of development and minimise traffic flow interference associated with access movements along adjacent State maintained roads.</p>	<p>DTS/DPF 1.1</p> <p>An access point satisfies (a), (b) or (c):</p> <ul style="list-style-type: none"> <li>(a) where servicing a single (1) dwelling / residential allotment:                             <ul style="list-style-type: none"> <li>(i) it will not result in more than one access point</li> <li>(ii) vehicles can enter and exit the site in a forward direction</li> <li>(iii) vehicles can cross the property boundary at an angle between 70 degrees and 90 degrees</li> <li>(iv) passenger vehicles (with a length up to 5.2m) can enter and exit the site wholly within the kerbside lane of the road</li> <li>(v) it will have a width of between 3m and 4m (measured at the site boundary)</li> </ul> </li> <li>(b) where the development will result in 2 and up to 6 dwellings:                             <ul style="list-style-type: none"> <li>(i) (i) it will not result in more than one access point servicing the development site</li> <li>(ii) vehicles can enter and exit the site in a forward direction</li> <li>(iii) vehicles can cross the property boundary at an angle between 70 degrees and 90 degrees</li> <li>(iv) passenger vehicles (with a length up to 5.2m) can enter and exit the site wholly within the kerbside lane of the road</li> <li>(v) it will have a width of between 5.8m to 6m (measured at the site boundary) and an access depth of 6m (measured from the site boundary into the site)</li> </ul> </li> <li>(c) where the development will result in 7 or more dwellings, or is a non-residential land use:                             <ul style="list-style-type: none"> <li>(i) it will not result in more than one access point servicing the development site</li> <li>(ii) vehicles can enter and exit the site using left turn only movements</li> <li>(iii) vehicles can enter and exit the site in a forward direction</li> <li>(iv) vehicles can cross the property boundary at an angle between 70 degrees and 90 degrees</li> <li>(v) it will have a width of between 6m and 7m (measured at the site boundary), where the development is expected to accommodate vehicles with a length of 6.4m or less</li> <li>(vi) it will have a width of between 6m and 9m (measured at the site boundary), where the development is expected to accommodate</li> </ul> </li> </ul>

	<p>vehicles with a length from 6.4m to 8.8m</p> <p>(vii) it will have a width of between 9m and 12m (measured at the site boundary), where the development is expected to accommodate vehicles with a length from 8.8m to 12.5m</p> <p>(viii) provides for simultaneous two-way vehicle movements at the access:</p> <p style="margin-left: 20px;">A. with entry and exit movements for vehicles with a length up to 5.2m vehicles being fully within the kerbside lane of the road</p> <p style="margin-left: 40px;">and</p> <p style="margin-left: 20px;">B. with entry movements of 8.8m vehicles (where relevant) being fully within the kerbside lane of the road and the exit movements of 8.8m vehicles do not cross the centreline of the road.</p>
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Access - On-Site Queuing

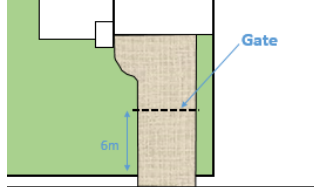
PO 2.1

Sufficient accessible on-site queuing adjacent to access points is provided to meet the needs of development so that all vehicle queues can be contained fully within the boundaries of the development site, to minimise interruption on the functional performance of the road and maintain safe vehicle movements.

DTS/DPF 2.1

An access point in accordance with one of the following:

(a) will not service, or is not intended to service, more than 6 dwellings and there are no internal driveways, intersections, car parking spaces or gates within 6.0m of the access point (measured from the site boundary into the site) as shown in the following diagram:

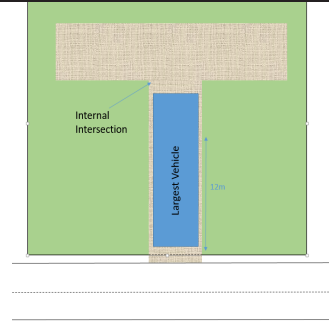


(b) will service, or is intended to service, development that will generate less than 60 vehicle movements per day, and:

- (i) is expected to be serviced by vehicles with a length no greater than 6.4m
- (ii) there are no internal driveways, intersections, parking spaces or gates within 6.0m of the access point (measured from the site boundary into the site)

(c) will service, or is intended to service, development that will generate less than 60 vehicle movements per day, and:

- (i) is expected to be serviced by vehicles with a length greater than a 6.4m small rigid vehicle
- (ii) there are no internal driveways, intersections, parking spaces or gates within 6.0m of the access point (measured from the site boundary into the site)
- (iii) any termination of or change in priority of movement within the main car park aisle is located far enough into the site so that the largest vehicle expected on-site can store fully within the site before being required to stop
- (iv) all parking or manoeuvring areas for commercial vehicles are located a minimum of 12m or the length of the longest vehicle expected on site from the access (measured from the site boundary into the site) as shown in the following diagram:



Access - (Location Spacing) - Existing Access Point

PO 3.1

Existing access points are designed to accommodate the type and volume of traffic likely to be generated by the development.

DTS/DPF 3.1

An existing access point satisfies (a), (b) or (c):

- (a) it will not service, or is not intended to service, more than 6 dwellings
- (b) it is not located on a Controlled Access Road and will not service development that will result in (b) a larger class of vehicle expected to access the site using the existing access
- (c) is not located on a Controlled Access Road and development constitutes:
  - (i) a change of use between an office <500m<sup>2</sup> gross leasable floor area and a consulting room <500m<sup>2</sup> gross leasable floor area or vice versa
  - (ii) a change in use from a shop to an office, consulting room or personal or domestic services establishment
  - (iii) a change of use from a consulting room or office <250m<sup>2</sup> gross leasable floor area to shop <250m<sup>2</sup> gross leasable floor area
  - (iv) a change of use from a shop <500m<sup>2</sup> gross leasable floor area to a warehouse <500m<sup>2</sup> gross leasable floor area
  - (v) an office or consulting room with a <500m<sup>2</sup> gross leasable floor area.

Access – Location (Spacing) – New Access Points

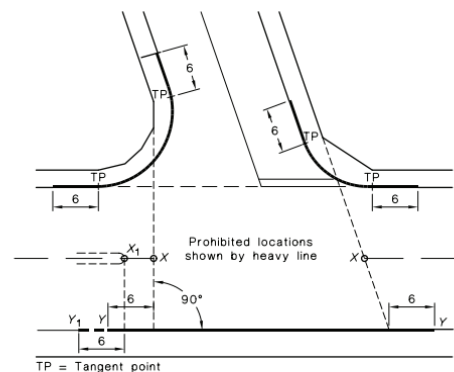
PO 4.1

New access points are spaced apart from any existing access point or public road junction to manage impediments to traffic flow and maintain safe and efficient operating conditions on the road.

DTS/DPF 4.1

A new access point satisfies (a), (b) or (c):

- (a) where a development site is intended to serve between 1 and 6 dwellings and has frontage to a local road (not being a Controlled Access Road) with a speed environment of 60km/h or less, the new access point is provided on the local road and located a minimum of 6.0m from the tangent point as shown in the following diagram:



NOTE:  
The points marked X<sub>1</sub> and X are respectively at the median end on a divided road and at the intersection of the main road centre-line and the extensions of the side road property lines shown as dotted lines, on an undivided road. On a divided road, dimension Y-Y extends to Point Y<sub>1</sub>.

- (b) where the development site is intended to serve between 1 and 6 dwellings and access from a local road (being a road that is not a State Maintained Road) is not available, the new access:
  - (i) is not located on a Controlled Access Road
  - (ii) is not located on a section of road affected by double barrier lines
  - (iii) will be on a road with a speed environment of 70km/h or less
  - (iv) is located outside of the bold lines on the diagram shown in the diagram following part (a)



(v) located minimum of 6m from a median opening or pedestrian crossing

(c) where DTS/DPF 4.1 part (a) and (b) do not apply and access from an alternative local road at least 25m from the State Maintained Road is not available, and the access is not located on a Controlled Access Road, the new access is separated in accordance with the following:

Speed Limit	Separation between access points	Separation from public road junctions and merging/terminating lanes
50 km/h or less	No spacing requirement	20m
60 km/h	30m	73m
70 km/h	40m	92m
80 km/h	50m	114m
90 km/h	65m	139m
100 km/h	80m	165m
110 km/h	100m	193m

Access - Location (Sight Lines)

PO 5.1

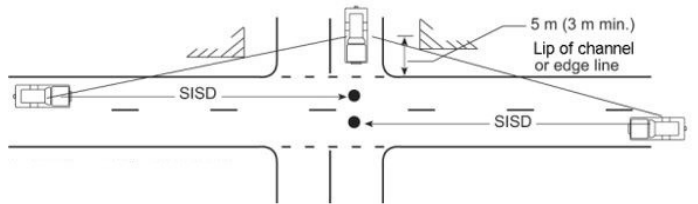
Access points are located and designed to accommodate sight lines that enable drivers and pedestrians to navigate potential conflict points with roads in a controlled and safe manner.

DTS/DPF 5.1

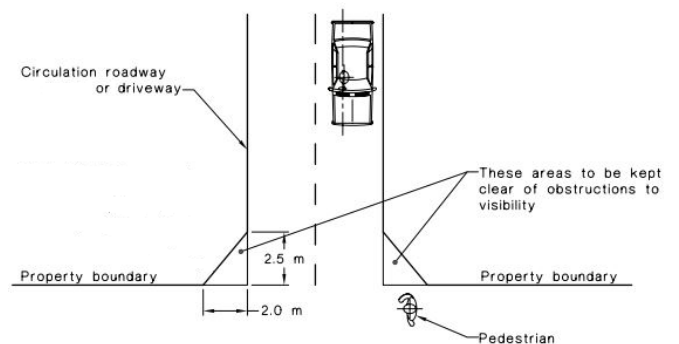
An access point satisfies (a) or (b):

- (a) drivers approaching or exiting an access point have an unobstructed line of sight in accordance with the following (measured at a height of 1.1m above the surface of the road):

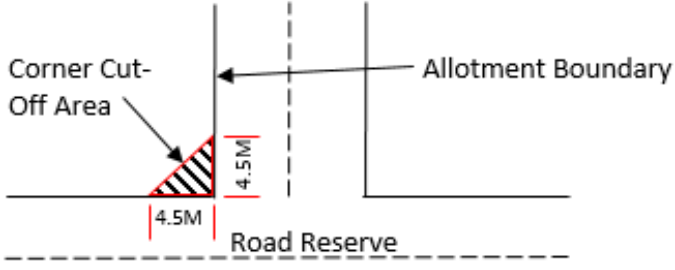
Speed Limit	Access point serving 1-6 dwellings	Access point serving all other development
40 km/h or less	40m	73m
50 km/h	55m	97m
60 km/h	73m	123m
70 km/h	92m	151m
80 km/h	114m	181m
90 km/h	139m	214m
100 km/h	165m	248m
110km/h	193m	285m



- (b) pedestrian sightlines in accordance with the following diagram:



Access – Mud and Debris

<p>PO 6.1</p> <p>Access points constructed to minimise mud or other debris being carried or transferred onto the road to ensure safe road operating conditions.</p>	<p>DTS/DPF 6.1</p> <p>Where the road has an unsealed shoulder and the road is not kerbed, the access way is sealed from the edge of seal on the road for a minimum of 10m or to the property boundary (whichever is closer).</p>
<p>Access - Stormwater</p>	
<p>PO 7.1</p> <p>Access points are designed to minimise negative impact on roadside drainage of water.</p>	<p>DTS/DPF 7.1</p> <p>Development does not:</p> <ul style="list-style-type: none"> <li>(a) decrease the capacity of an existing drainage point</li> <li>(b) restrict or prevent the flow of stormwater through an existing drainage point and system.</li> </ul>
<p>Building on Road Reserve</p>	
<p>PO 8.1</p> <p>Buildings or structures that encroach onto, above or below road reserves are designed and sited to minimise impact on safe movements by all road users.</p>	<p>DTS/DPF 8.1</p> <p>Buildings or structures are not located on, above or below the road reserve.</p>
<p>Public Road Junctions</p>	
<p>PO 9.1</p> <p>New junctions with a public road (including the opening of unmade public road junctions) or modifications to existing road junctions are located and designed to ensure safe operating conditions are maintained on the State Maintained Road.</p>	<p>DTS/DPF 9.1</p> <p>Development does not comprise any of the following:</p> <ul style="list-style-type: none"> <li>(a) creating a new junction with a public road</li> <li>(b) opening an unmade public road junction</li> <li>(c) modifying an existing public road junction.</li> </ul>
<p>Corner Cut-Offs</p>	
<p>PO 10.1</p> <p>Development is located and designed to maintain sightlines for drivers turning into and out of public road junctions to contribute to driver safety.</p>	<p>DTS/DPF 10.1</p> <p>Development does not involve building work, or building work is located wholly outside the land shown as 'Corner Cut-Off Area' in the following diagram:</p>  <p>The diagram illustrates a corner cut-off area at a road junction. A solid line represents the 'Allotment Boundary'. A dashed line represents the 'Road Reserve'. A triangular area at the corner of the road is shaded with diagonal lines and labeled 'Corner Cut-Off Area'. The dimensions of this area are indicated as 4.5M along both the road edges.</p>

**Procedural Matters (PM) - Referrals**

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Except where all of the relevant deemed-to-satisfy criteria are met, development (including the division of land) that involves any of the following to/on a State Maintained Road or within 25 metres of an intersection with any such road:</p> <ul style="list-style-type: none"> <li>(a) creation of a new access or junction</li> <li>(b) alterations to an existing access or public road junction (except where deemed to be minor in the opinion of the relevant authority)</li> </ul>	<p>Commissioner of Highways.</p>	<p>To provide expert technical assessment and direction to the Relevant Authority on the safe and efficient operation and management of all roads relevant to the Commissioner of Highways as described in the Planning and Design Code.</p>	<p>Development of a class to which Schedule 9 clause 3 item 7 of the Planning, Development and</p>

(c) development that changes the nature of vehicular movements or increase the number or frequency of movements through an existing access (except where deemed to be minor in the opinion of the relevant authority).			Infrastructure (General) Regulations 2017 applies.
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## Water Resources Overlay

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of the quality of surface waters considering adverse water quality impacts associated with projected reductions in rainfall and warmer air temperatures as a result of climate change.
DO 2	Maintain the conveyance function and natural flow paths of watercourses to assist in the management of flood waters and stormwater runoff.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Water Catchment	
PO 1.1 Watercourses and their beds, banks, wetlands and floodplains (1% AEP flood extent) are not damaged or modified and are retained in their natural state, except where modification is required for essential access or maintenance purposes.	DTS/DPF 1.1 None are applicable.
PO 1.2 Development avoids interfering with the existing hydrology or water regime of swamps and wetlands other than to improve the existing conditions to enhance environmental values.	DTS/DPF 1.2 None are applicable.
PO 1.3 Wetlands and low-lying areas providing habitat for native flora and fauna are not drained, except temporarily for essential management purposes to enhance environmental values.	DTS/DPF 1.3 None are applicable.
PO 1.4 Watercourses, areas of remnant native vegetation, or areas prone to erosion that are capable of natural regeneration are fenced off to limit stock access.	DTS/DPF 1.4 None are applicable.
PO 1.5 Development that increases surface water run-off includes a suitably sized strip of vegetated land on each side of a watercourse to filter runoff to:  (a) reduce the impacts on native aquatic ecosystems (b) minimise soil loss eroding into the watercourse.	DTS/DPF 1.5 A strip of land 20m or more wide measured from the top of existing banks on each side of the watercourse is free from development, livestock use and revegetated with locally indigenous vegetation.
PO 1.6 Development resulting in the depositing or placing of an object or solid material in a watercourse or lake occurs only where it involves any of the	DTS/DPF 1.6 None are applicable.

following:  (a) the construction of an erosion control structure (b) devices or structures used to extract or regulate water flowing in a watercourse (c) devices used for scientific purposes (d) the rehabilitation of watercourses.	
PO 1.7  Watercourses, floodplains (1% AEP flood extent) and wetlands protected and enhanced by retaining and protecting existing native vegetation.	DTS/DPF 1.7  None are applicable.
PO 1.8  Watercourses, floodplains (1% AEP flood extent) and wetlands are protected and enhanced by stabilising watercourse banks and reducing sediments and nutrients entering the watercourse.	DTS/DPF 1.8  None are applicable.
PO 1.9  Dams, water tanks and diversion drains are located and constructed to maintain the quality and quantity of flows required to meet environmental and downstream needs.	DTS/DPF 1.9  None are applicable.

**Procedural Matters (PM) - Referrals**

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

**Part 4 - General Development Policies**

**Advertisements**

**Assessment Provisions (AP)**

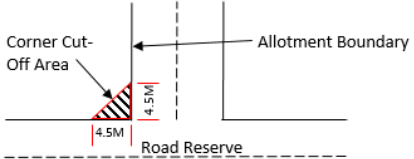
Desired Outcome (DO)

Desired Outcome	
DO 1	Advertisements and advertising hoardings are appropriate to context, efficient and effective in communicating with the public, limited in number to avoid clutter, and do not create hazard.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria /</b>
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Designated Performance Feature	
Appearance	
<p>PO 1.1</p> <p>Advertisements are compatible and integrated with the design of the building and/or land they are located on.</p>	<p>DTS/DPF 1.1</p> <p>Advertisements attached to a building satisfy all of the following:</p> <ul style="list-style-type: none"> <li>(a) are not located in a Neighbourhood-type zone</li> <li>(b) where they are flush with a wall:                             <ul style="list-style-type: none"> <li>(i) if located at canopy level, are in the form of a fascia sign</li> <li>(ii) if located above canopy level:                                     <ul style="list-style-type: none"> <li>A. do not have any part rising above parapet height</li> <li>B. are not attached to the roof of the building</li> </ul> </li> </ul> </li> <li>(c) where they are not flush with a wall:                             <ul style="list-style-type: none"> <li>(i) if attached to a verandah, no part of the advertisement protrudes beyond the outer limits of the verandah structure</li> <li>(ii) if attached to a two-storey building:                                     <ul style="list-style-type: none"> <li>A. has no part located above the finished floor level of the second storey of the building</li> <li>B. does not protrude beyond the outer limits of any verandah structure below</li> <li>C. does not have a sign face that exceeds 1m<sup>2</sup> per side.</li> </ul> </li> </ul> </li> <li>(d) if located below canopy level, are flush with a wall</li> <li>(e) if located at canopy level, are in the form of a fascia sign</li> <li>(f) if located above a canopy:                             <ul style="list-style-type: none"> <li>(i) are flush with a wall</li> <li>(ii) do not have any part rising above parapet height</li> <li>(iii) are not attached to the roof of the building.</li> </ul> </li> <li>(g) if attached to a verandah, no part of the advertisement protrudes beyond the outer limits of the verandah structure</li> <li>(h) if attached to a two-storey building, have no part located above the finished floor level of the second storey of the building</li> <li>(i) where they are flush with a wall, do not, in combination with any other existing sign, cover more than 15% of the building facade to which they are attached.</li> </ul>
<p>PO 1.2</p> <p>Advertising hoardings do not disfigure the appearance of the land upon which they are situated or the character of the locality.</p>	<p>DTS/DPF 1.2</p> <p>Where development comprises an advertising hoarding, the supporting structure is:</p> <ul style="list-style-type: none"> <li>(a) concealed by the associated advertisement and decorative detailing or</li> <li>(b) not visible from an adjacent public street or thoroughfare, other than a support structure in the form of a single or dual post design.</li> </ul>
<p>PO 1.3</p> <p>Advertising does not encroach on public land or the land of an adjacent allotment.</p>	<p>DTS/DPF 1.3</p> <p>Advertisements and/or advertising hoardings are contained within the boundaries of the site.</p>
<p>PO 1.4</p> <p>Where possible, advertisements on public land are integrated with existing structures and infrastructure.</p>	<p>DTS/DPF 1.4</p> <p>Advertisements on public land that meet at least one of the following:</p> <ul style="list-style-type: none"> <li>(a) achieves Advertisements DTS/DPF 1.1</li> <li>(b) are integrated with a bus shelter.</li> </ul>
<p>PO 1.5</p> <p>Advertisements and/or advertising hoardings are of a scale and size appropriate to the character of the locality.</p>	<p>DTS/DPF 1.5</p> <p>None are applicable.</p>
Proliferation of Advertisements	
<p>PO 2.1</p>	<p>DTS/DPF 2.1</p>

<p>Proliferation of advertisements is minimised to avoid visual clutter and untidiness.</p>	<p>No more than one freestanding advertisement is displayed per occupancy.</p>
<p>PO 2.2 Multiple business or activity advertisements are co-located and coordinated to avoid visual clutter and untidiness.</p>	<p>DTS/DPF 2.2 Advertising of a multiple business or activity complex is located on a single advertisement fixture or structure.</p>
<p>PO 2.3 Proliferation of advertisements attached to buildings is minimised to avoid visual clutter and untidiness.</p>	<p>DTS/DPF 2.3 Advertisements satisfy all of the following:                       (a) are attached to a building                      (b) other than in a Neighbourhood-type zone, where they are flush with a wall, cover no more than 15% of the building facade to which they are attached                      (c) do not result in more than one sign per occupancy that is not flush with a wall.</p>
<p>Advertising Content</p>	
<p>PO 3.1 Advertisements are limited to information relating to the lawful use of land they are located on to assist in the ready identification of the activity or activities on the land and avoid unrelated content that contributes to visual clutter and untidiness.</p>	<p>DTS/DPF 3.1 Advertisements contain information limited to a lawful existing or proposed activity or activities on the same site as the advertisement.</p>
<p>Amenity Impacts</p>	
<p>PO 4.1 Light spill from advertisement illumination does not unreasonably compromise the amenity of sensitive receivers.</p>	<p>DTS/DPF 4.1 Advertisements do not incorporate any illumination.</p>
<p>Safety</p>	
<p>PO 5.1 Advertisements and/or advertising hoardings erected on a verandah or projecting from a building wall are designed and located to allow for safe and convenient pedestrian access.</p>	<p>DTS/DPF 5.1 Advertisements have a minimum clearance of 2.5m between the top of the footpath and base of the underside of the sign.</p>
<p>PO 5.2 Advertisements and/or advertising hoardings do not distract or create a hazard to drivers through excessive illumination.</p>	<p>DTS/DPF 5.2 No advertisement illumination is proposed.</p>
<p>PO 5.3 Advertisements and/or advertising hoardings do not create a hazard to drivers by:                       (a) being liable to interpretation by drivers as an official traffic sign or signal                      (b) obscuring or impairing drivers' view of official traffic signs or signals                      (c) obscuring or impairing drivers' view of features of a road that are potentially hazardous (such as junctions, bends, changes in width and traffic control devices) or other road or rail vehicles at/or approaching level crossings.</p>	<p>DTS/DPF 5.3 Advertisements satisfy all of the following:                       (a) are not located in a public road or rail reserve                      (b) are located wholly outside the land shown as 'Corner Cut-Off Area' in the following diagram</p>  <p>The diagram illustrates a road corner with a 4.5m road reserve. A hatched area labeled 'Corner Cut-Off Area' is shown at the corner. A dashed line indicates the 'Allotment Boundary'.</p>
<p>PO 5.4 Advertisements and/or advertising hoardings do not create a hazard by distracting drivers from the primary driving task at a location where the demands on driver concentration are high.</p>	<p>DTS/DPF 5.4 Advertisements and/or advertising hoardings are not located along or adjacent to a road having a speed limit of 80km/h or more.</p>
<p>PO 5.5 Advertisements and/or advertising hoardings provide sufficient clearance from the road carriageway to allow for safe and convenient movement by all road users.</p>	<p>DTS/DPF 5.5 Where the advertisement or advertising hoarding is:                       (a) on a kerbed road with a speed zone of 60km/h or less, the advertisement or advertising hoarding is located at least 0.6m from</p>

	<p>the roadside edge of the kerb</p> <p>(b) on an unkerbed road with a speed zone of 60km/h or less, the advertisement or advertising hoarding is located at least 5.5m from the edge of the seal</p> <p>(c) on any other kerbed or unkerbed road, the advertisement or advertising hoarding is located a minimum of the following distance from the roadside edge of the kerb or the seal:</p> <p style="margin-left: 40px;">(a) 110 km/h road - 14m</p> <p style="margin-left: 40px;">(b) 100 km/h road - 13m</p> <p style="margin-left: 40px;">(c) 90 km/h road - 10m</p> <p style="margin-left: 40px;">(d) 70 or 80 km/h road - 8.5m.</p>
<p>PO 5.6</p> <p>Advertising near signalised intersections does not cause unreasonable distraction to road users through illumination, flashing lights, or moving or changing displays or messages.</p>	<p>DTS/DPF 5.6</p> <p>Advertising:</p> <p>(a) is not illuminated</p> <p>(b) does not incorporate a moving or changing display or message</p> <p>(c) does not incorporate a flashing light(s).</p>

**Animal Keeping and Horse Keeping**

**Assessment Provisions (AP)**

Desired Outcome (DO)

<b>Desired Outcome</b>	
<p>DO 1</p>	<p>Animals are kept at a density that is not beyond the carrying capacity of the land and in a manner that minimises their adverse effects on the environment, local amenity and surrounding development.</p>

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
Siting and Design	
<p>PO 1.1</p> <p>Animal keeping, horse keeping and associated activities do not create adverse impacts on the environment or the amenity of the locality.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Animal keeping and horse keeping is located and managed to minimise the potential transmission of disease to other operations where animals are kept.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
Horse Keeping	
<p>PO 2.1</p> <p>Water from stable wash-down areas is directed to appropriate absorption areas and/or drainage pits to minimise pollution of land and water.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>PO 2.2</p> <p>Stables, horse shelters or associated yards are sited appropriate distances away from sensitive receivers and/or allotments in other ownership to avoid adverse impacts from dust, erosion and odour.</p>	<p>DTS/DPF 2.2</p> <p>Stables, horse shelters and associated yards are sited in accordance with all of the following:</p> <p style="margin-left: 20px;">(a) 30m or more from any sensitive receivers (existing or approved) on</p>

	land in other ownership (b) where an adjacent allotment is vacant and in other ownership, 30m or more from the boundary of that allotment.
PO 2.3 All areas accessible to horses are separated from septic tank effluent disposal areas to protect the integrity of that system. Stable flooring is constructed with an impervious material to facilitate regular cleaning.	DTS/DPF 2.3 Septic tank effluent disposal areas are enclosed with a horse-proof barrier such as a fence to exclude horses from this area.
PO 2.4 To minimise environmental harm and adverse impacts on water resources, stables, horse shelters and associated yards are appropriately set back from a watercourse.	DTS/DPF 2.4 Stables, horse shelters and associated yards are set back 50m or more from a watercourse.
PO 2.5 Stables, horse shelters and associated yards are located on slopes that are stable to minimise the risk of soil erosion and water runoff.	DTS/DPF 2.5 Stables, horse shelters and associated yards are not located on land with a slope greater than 10% (1-in-10).
Kennels	
PO 3.1 Kennel flooring is constructed with an impervious material to facilitate regular cleaning.	DTS/DPF 3.1 The floors of kennels satisfy all of the following:  (a) are constructed of impervious concrete (b) are designed to be self-draining when washed down.
PO 3.2 Kennels and exercise yards are designed and sited to minimise noise nuisance to neighbours through measures such as:  (a) adopting appropriate separation distances (b) orientating openings away from sensitive receivers.	DTS/DPF 3.2 Kennels are sited 500m or more from the nearest sensitive receiver on land in other ownership.
PO 3.3 Dogs are regularly observed and managed to minimise nuisance impact on adjoining sensitive receivers from animal behaviour.	DTS/DPF 3.3 Kennels are sited in association with a permanent dwelling on the land.
Wastes	
PO 4.1 Storage of manure, used litter and other wastes (other than wastewater lagoons) is designed, constructed and managed to minimise attracting and harbouring vermin.	DTS/DPF 4.1 None are applicable.
PO 4.2 Facilities for the storage of manure, used litter and other wastes (other than wastewater lagoons) are located to minimise the potential for polluting water resources.	DTS/DPF 4.2 Waste storage facilities (other than wastewater lagoons) are located outside the 1% AEP flood event areas.

## Aquaculture

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Aquaculture facilities are developed in an ecologically, economically and socially sustainable manner to support an equitable sharing of marine, coastal and inland resources and mitigate conflict with other water-based and land-based uses.



Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land-based Aquaculture	
PO 1.1 Land-based aquaculture and associated components are sited and designed to mitigate adverse impacts on nearby sensitive receivers.	DTS/DPF 1.1 Land-based aquaculture and associated components are located to satisfy all of the following: (a) 200m or more from a sensitive receiver in other ownership (b) 500m or more from the boundary of a zone primarily intended to accommodate sensitive receivers.
PO 1.2 Land-based aquaculture and associated components are sited and designed to prevent surface flows from entering ponds in a 1% AEP sea flood level event.	DTS/DPF 1.2 None are applicable.
PO 1.3 Land-based aquaculture and associated components are sited and designed to prevent pond leakage that would pollute groundwater.	DTS/DPF 1.3 None are applicable.
PO 1.4 Land-based aquaculture and associated components are sited and designed to prevent farmed species escaping and entering into any waters.	DTS/DPF 1.4 None are applicable.
PO 1.5 Land-based aquaculture and associated components, including intake and discharge pipes, are designed to minimise the need to traverse sensitive areas to minimise impact on the natural environment.	DTS/DPF 1.5 None are applicable.
PO 1.6 Pipe inlets and outlets associated with land-based aquaculture are sited and designed to minimise the risk of disease transmission.	DTS/DPF 1.6 None are applicable.
PO 1.7 Storage areas associated with aquaculture activity are integrated with the use of the land and sited and designed to minimise their visual impact on the surrounding environment.	DTS/DPF 1.7 None are applicable.
Marine Based Aquaculture	
PO 2.1 Marine aquaculture is sited and designed to minimise its adverse impacts on sensitive ecological areas including: (a) creeks and estuaries (b) wetlands (c) significant seagrass and mangrove communities (d) marine habitats and ecosystems.	DTS/DPF 2.1 None are applicable.
PO 2.2 Marine aquaculture is sited in areas with adequate water current to disperse sediments and dissolve particulate wastes to prevent the build-up of waste that may cause environmental harm.	DTS/DPF 2.2 None are applicable.
PO 2.3 Marine aquaculture is designed to not involve discharge of human waste on the site, on any adjacent land or into nearby waters.	DTS/DPF 2.3 None are applicable.

PO 2.4	DTS/DPF 2.4
Marine aquaculture (other than inter-tidal aquaculture) is located an appropriate distance seaward of the high water mark.	Marine aquaculture development is located 100m or more seaward of the high water mark.
PO 2.5	DTS/DPF 2.5
Marine aquaculture is sited and designed to not obstruct or interfere with: <ul style="list-style-type: none"> <li>(a) areas of high public use</li> <li>(b) areas, including beaches, used for recreational activities such as swimming, fishing, skiing, sailing and other water sports</li> <li>(c) areas of outstanding visual or environmental value</li> <li>(d) areas of high tourism value</li> <li>(e) areas of important regional or state economic activity, including commercial ports, wharfs and jetties</li> <li>(f) the operation of infrastructure facilities including inlet and outlet pipes associated with the desalination of sea water.</li> </ul>	None are applicable.
PO 2.6	DTS/DPF 2.6
Marine aquaculture is sited and designed to minimise interference and obstruction to the natural processes of the coastal and marine environment.	None are applicable.
PO 2.7	DTS/DPF 2.7
Marine aquaculture is designed to be as unobtrusive as practicable by incorporating measures such as: <ul style="list-style-type: none"> <li>(a) using feed hoppers painted in subdued colours and suspending them as close as possible to the surface of the water</li> <li>(b) positioning structures to protrude the minimum distance practicable above the surface of the water</li> <li>(c) avoiding the use of shelters and structures above cages and platforms unless necessary to exclude predators and protected species from interacting with the farming structures and/or stock inside the cages, or for safety reasons</li> <li>(d) positioning racks, floats and other farm structures in unobtrusive locations landward from the shoreline.</li> </ul>	None are applicable.
PO 2.8	DTS/DPF 2.8
Access, launching and maintenance facilities utilise existing established roads, tracks, ramps and paths to or from the sea where possible to minimise environmental and amenity impacts.	None are applicable.
PO 2.9	DTS/DPF 2.9
Access, launching and maintenance facilities are developed as common user facilities and are co-located where practicable to mitigate adverse impacts on coastal areas.	None are applicable.
PO 2.10	DTS/DPF 2.10
Marine aquaculture is sited to minimise potential impacts on, and to protect the integrity of, reserves under the <i>National Parks and Wildlife Act 1972</i> .	Marine aquaculture is located 1000m or more seaward of the boundary of any reserve under the <i>National Parks and Wildlife Act 1972</i> .
PO 2.11	DTS/DPF 2.11
Onshore storage, cooling and processing facilities do not impair the coastline and its visual amenity by: <ul style="list-style-type: none"> <li>(a) being sited, designed, landscaped and of a scale to reduce the overall bulk and appearance of buildings and complement the coastal landscape</li> <li>(b) making provision for appropriately sited and designed vehicular access arrangements, including using existing vehicular access arrangements as far as practicable</li> <li>(c) incorporating appropriate waste treatment and disposal.</li> </ul>	None are applicable.
Navigation and Safety	
PO 3.1	DTS/DPF 3.1

Marine aquaculture sites are suitably marked to maintain navigational safety.	None are applicable.
PO 3.2 Marine aquaculture is sited to provide adequate separation between farms for safe navigation.	DTS/DPF 3.2 None are applicable.
Environmental Management	
PO 4.1 Marine aquaculture is maintained to prevent hazards to people and wildlife, including breeding grounds and habitats of native marine mammals and terrestrial fauna, especially migratory species.	DTS/DPF 4.1 None are applicable.
PO 4.2 Marine aquaculture is designed to facilitate the relocation or removal of structures in the case of emergency such as oil spills, algal blooms and altered water flows.	DTS/DPF 4.2 None are applicable.
PO 4.3 Marine aquaculture provides for progressive or future reclamation of disturbed areas ahead of, or upon, decommissioning.	DTS/DPF 4.3 None are applicable.
PO 4.4 Aquaculture operations incorporate measures for the removal and disposal of litter, disused material, shells, debris, detritus, dead animals and animal waste to prevent pollution of waters, wetlands, or the nearby coastline.	DTS/DPF 4.4 None are applicable.

## Beverage Production in Rural Areas

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Mitigation of potential amenity and environmental impacts of value-adding beverage production facilities such as wineries, distilleries, cideries and breweries.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Odour and Noise	
PO 1.1 Beverage production activities are designed and sited to minimise odour impacts on rural amenity.	DTS/DPF 1.1 None are applicable.
PO 1.2 Beverage production activities are designed and sited to minimise noise impacts on sensitive receivers.	DTS/DPF 1.2 None are applicable.
PO 1.3	DTS/DPF 1.3

Fermentation, distillation, manufacturing, storage, packaging and bottling activities occur within enclosed buildings to improve the visual appearance within a locality and manage noise associated with these activities.	None are applicable.
PO 1.4 Breweries are designed to minimise odours emitted during boiling and fermentation stages of production.	DTS/DPF 1.4 Brew kettles are fitted with a vapour condenser.
PO 1.5 Beverage production solid wastes are stored in a manner that minimises odour impacts on sensitive receivers in other ownership.	DTS/DPF 1.5 Solid waste from beverage production is collected and stored in sealed containers and removed from the site within 48 hours.
Water Quality	
PO 2.1 Beverage production wastewater management systems (including wastewater irrigation) are set back from watercourses to minimise adverse impacts on water resources.	DTS/DPF 2.1 Wastewater management systems are set back 50m or more from the banks of watercourses and bores.
PO 2.2 The storage or disposal of chemicals or hazardous substances is undertaken in a manner to prevent pollution of water resources.	DTS/DPF 2.2 None are applicable.
PO 2.3 Stormwater runoff from areas that may cause contamination due to beverage production activities (including vehicle movements and machinery operations) is drained to an onsite stormwater treatment system to manage potential environmental impacts.	DTS/DPF 2.3 None are applicable.
PO 2.4 Stormwater runoff from areas unlikely to cause contamination by beverage production and associated activities (such as roof catchments and clean hard-paved surfaces) is diverted away from beverage production areas and wastewater management systems.	DTS/DPF 2.4 None are applicable.
Wastewater Irrigation	
PO 3.1 Beverage production wastewater irrigation systems are designed and located to not contaminate soil and surface and ground water resources or damage crops.	DTS/DPF 3.1 None are applicable.
PO 3.2 Beverage production wastewater irrigation systems are designed and located to minimise impact on amenity and avoid spray drift onto adjoining land.	DTS/DPF 3.2 Beverage production wastewater is not irrigated within 50m of any dwelling in other ownership.
PO 3.3 Beverage production wastewater is not irrigated onto areas that pose an undue risk to the environment or amenity such as:  (a) waterlogged areas (b) land within 50m of a creek, swamp or domestic or stock water bore (c) land subject to flooding (d) steeply sloping land (e) rocky or highly permeable soil overlaying an unconfined aquifer.	DTS/DPF 3.3 None are applicable.

## Bulk Handling and Storage Facilities

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Facilities for the bulk handling and storage of agricultural, mineral, petroleum, rock, ore or other similar commodities are designed to minimise adverse impacts on transport networks, the landscape and surrounding land uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting and Design	
PO 1.1 Bulk handling and storage facilities are sited and designed to minimise risks of adverse air quality and noise impacts on sensitive receivers.	DTS/DPF 1.1 Facilities for the handling, storage and dispatch of commodities in bulk (excluding processing) meet the following minimum separation distances from sensitive receivers: <ul style="list-style-type: none"> <li>(a) bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals at a wharf or wharf side facility (including sea-port grain terminals), where the handling of these materials into or from vessels does not exceed 100 tonnes per day: 300m or more from residential premises not associated with the facility</li> <li>(b) bulk handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to or from any commercial storage facility: 300m or more from residential premises not associated with the facility</li> <li>(c) bulk petroleum storage involving individual containers with a capacity up to 200 litres and a total on-site storage capacity not exceeding 1,000 cubic metres: 500m or more</li> <li>(d) coal handling with:                             <ul style="list-style-type: none"> <li>a. capacity up to 1 tonne per day or a storage capacity up to 50 tonnes: 500m or more</li> <li>b. capacity exceeding 1 tonne per day but not exceeding 100 tonnes per day or a storage capacity exceeding 50 tonnes but not exceeding 5000 tonnes: 1000m or more.</li> </ul> </li> </ul>
Buffers and Landscaping	
PO 2.1 Bulk handling and storage facilities incorporate a buffer area for the establishment of dense landscaping adjacent road frontages to enhance the appearance of land and buildings from public thoroughfares.	DTS/DPF 2.1 None are applicable.
PO 2.2 Bulk handling and storage facilities incorporate landscaping to assist with screening and dust filtration.	DTS/DPF 2.2 None are applicable.
Access and Parking	
PO 3.1 Roadways and vehicle parking areas associated with bulk handling and storage facilities are designed and surfaced to control dust emissions and prevent drag out of material from the site.	DTS/DPF 3.1 Roadways and vehicle parking areas are sealed with an all-weather surface.
Slipways, Wharves and Pontoons	
PO 4.1 Slipways, wharves and pontoons used for the handling of bulk materials (such as fuel, oil, catch, bait and the like) incorporate catchment devices to avoid the release of materials into adjacent waters.	DTS/DPF 4.1 None are applicable.

### Clearance from Overhead Powerlines

#### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.	DTS/DPF 1.1 One of the following is satisfied: <ul style="list-style-type: none"> <li>(a) a declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the <i>Electricity Act 1996</i></li> <li>(b) there are no aboveground powerlines adjoining the site that are the subject of the proposed development.</li> </ul>

### Design

#### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is: <ul style="list-style-type: none"> <li>(a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributes to the character of the immediate area</li> <li>(b) durable - fit for purpose, adaptable and long lasting</li> <li>(c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access, and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors</li> <li>(d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.</li> </ul>

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
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All development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter over footpaths ( <u>in the form of verandahs, awnings, canopies and the like, with adequate lighting</u> ) to positively contribute to the walkability, comfort and safety of the public realm.	DTS/DPF 1.2 None are applicable.
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment is integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by: <ul style="list-style-type: none"> <li>(a) positioning plant and equipment in unobtrusive locations viewed from public roads and spaces</li> <li>(b) screening rooftop plant and equipment from view</li> <li>(c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses.</li> </ul>	DTS/DPF 1.4 Development does not incorporate any structures that protrude beyond the roofline.
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form) taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable.
Safety	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development is designed to differentiate public, communal and private areas.	DTS/DPF 2.2 None are applicable.
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings), and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
Landscaping	
PO 3.1 Soft landscaping and tree planting is incorporated to:	DTS/DPF 3.1 None are applicable.

<ul style="list-style-type: none"> <li>(a) minimise heat absorption and reflection</li> <li>(b) maximise shade and shelter</li> <li>(c) maximise stormwater infiltration</li> <li>(d) enhance the appearance of land and streetscapes</li> <li>(e) contribute to biodiversity.</li> </ul>	
<p>PO 3.2</p> <p>Soft landscaping and tree planting maximises the use of locally indigenous plant species, incorporates plant species best suited to current and future climate conditions and avoids pest plant and weed species.</p>	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>
<p>Environmental Performance</p>	
<p>PO 4.1</p> <p>Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>
<p>PO 4.2</p> <p>Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.</p>	<p>DTS/DPF 4.2</p> <p>None are applicable.</p>
<p>PO 4.3</p> <p>Buildings incorporate climate-responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.</p>	<p>DTS/DPF 4.3</p> <p>None are applicable.</p>
<p>Water Sensitive Design</p>	
<p>PO 5.1</p> <p>Development is sited and designed to maintain natural hydrological systems without negatively impacting:</p> <ul style="list-style-type: none"> <li>(a) the quantity and quality of surface water and groundwater</li> <li>(b) the depth and directional flow of surface water and groundwater</li> <li>(c) the quality and function of natural springs.</li> </ul>	<p>DTS/DPF 5.1</p> <p>None are applicable.</p>
<p>On-site Waste Treatment Systems</p>	
<p>PO 6.1</p> <p>Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.</p>	<p>DTS/DPF 6.1</p> <p>Effluent disposal drainage areas do not:</p> <ul style="list-style-type: none"> <li>(a) encroach within an area used as private open space or result in less private open space than that specified in Design Table 1 - Private Open Space</li> <li>(b) use an area also used as a driveway</li> <li>(c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</li> </ul>
<p>Carparking Appearance</p>	
<p>PO 7.1</p> <p>Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on the streetscapes through techniques such as:</p> <ul style="list-style-type: none"> <li>(a) limiting protrusion above finished ground level</li> <li>(b) screening through appropriate planting, fencing and mounding</li> <li>(c) limiting the width of openings and integrating them into the building structure.</li> </ul>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
<p>PO 7.2</p> <p>Vehicle parking areas are appropriately located, designed and constructed to</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>



minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.	
PO 7.3 Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.	DTS/DPF 7.3 None are applicable.
PO 7.4 Street level vehicle parking areas incorporate tree planting to provide shade and reduce solar heat absorption and reflection.	DTS/DPF 7.4 None are applicable.
PO 7.5 Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.	DTS/DPF 7.5 None are applicable.
PO 7.6 Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.	DTS/DPF 7.6 None are applicable.
PO 7.7 Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.	DTS/DPF 7.7 None are applicable.
<b>Earthworks and sloping land</b>	
PO 8.1 Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.	DTS/DPF 8.1 Development does not involve any of the following:  (a) excavation exceeding a vertical height of 1m  (b) filling exceeding a vertical height of 1m  (c) a total combined excavation and filling vertical height of 2m or more.
PO 8.2 Driveways and access tracks are designed and constructed to allow safe and convenient access on sloping land (with a gradient exceeding 1 in 8).	DTS/DPF 8.2 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b):  (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway  (b) are constructed with an all-weather trafficable surface.
PO 8.3 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8):  (a) do not contribute to the instability of embankments and cuttings (b) provide level transition areas for the safe movement of people and goods to and from the development (c) are designed to integrate with the natural topography of the land.	DTS/DPF 8.3 None are applicable.
PO 8.4 Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on-site drainage systems to minimise erosion.	DTS/DPF 8.4 None are applicable.
PO 8.5 Development does not occur on land at risk of landslide nor increases the potential for landslide or land surface instability.	DTS/DPF 8.5 None are applicable.
<b>Fences and Walls</b>	
PO 9.1	DTS/DPF 9.1

Fences, walls and retaining walls are of sufficient height to maintain privacy and security without unreasonably impacting the visual amenity and adjoining land's access to sunlight or the amenity of public places.	None are applicable.
PO 9.2 Landscaping incorporated on the low side of retaining walls is visible from public roads and public open space to minimise visual impacts.	DTS/DPF 9.2 A vegetated landscaped strip 1m wide or more is provided against the low side of a retaining wall.
Overlooking / Visual Privacy (in building 3 storeys or less)	
PO 10.1 Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses.	DTS/DPF 10.1 Upper level windows facing side or rear boundaries shared with a residential allotment/site satisfy one of the following:  (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 200mm  (b) have sill heights greater than or equal to 1.5m above finished floor level  (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.
PO 10.2 Development mitigates direct overlooking from balconies, terraces and decks to habitable rooms and private open space of adjoining residential uses.	DTS/DPF 10.2 One of the following is satisfied:  (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace or (b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: (i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land or (ii) 1.7m above finished floor level in all other cases
All Residential development	
Front elevations and passive surveillance	
PO 11.1 Dwellings incorporate windows along primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.	DTS/DPF 11.1 Each dwelling with a frontage to a public street:  (a) includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m  (b) has an aggregate window area of at least 2m <sup>2</sup> facing the primary street.
PO 11.2 Dwellings incorporate entry doors within street frontages to address the street and provide a legible entry point for visitors.	DTS/DPF 11.2 Dwellings with a frontage to a public street have an entry door visible from the primary street boundary.
Outlook and amenity	
PO 12.1 Living rooms have an external outlook to provide a high standard of amenity for occupants.	DTS/DPF 12.1 A living room of a dwelling incorporates a window with an outlook towards the street frontage or private open space, public open space, or waterfront areas.
PO 12.2 Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.	DTS/DPF 12.2 None are applicable.
Ancillary Development	

PO 13.1

Residential ancillary buildings and structures are sited and designed to not detract from the streetscape or appearance of buildings on the site or neighbouring properties.

DTS/DPF 13.1

Ancillary buildings:

- (a) are ancillary to a dwelling erected on the same site
- (b) have a floor area not exceeding 60m<sup>2</sup>
- (c) are not constructed, added to or altered so that any part is situated:
  - (i) in front of any part of the building line of the dwelling to which it is ancillary
  - or
  - (ii) within 900mm of a boundary of the allotment with a secondary street (if the land has boundaries on two or more roads)
- (d) in the case of a garage or carport, the garage or carport:
  - (i) is set back at least 5.5m from the boundary of the primary street
  - (ii) when facing a primary street or secondary street, has a total door / opening not exceeding:
    - A. for dwellings of single building level - 7m in width or 50% of the site frontage, whichever is the lesser
    - B. for dwellings comprising two or more building levels at the building line fronting the same public street - 7m in width
- (e) if situated on a boundary (not being a boundary with a primary street or secondary street), do not exceed a length of 11.5m unless:
  - (i) a longer wall or structure exists on the adjacent site and is situated on the same allotment boundary and
  - (ii) the proposed wall or structure will be built along the same length of boundary as the existing adjacent wall or structure to the same or lesser extent
- (f) if situated on a boundary of the allotment (not being a boundary with a primary street or secondary street), all walls or structures on the boundary will not exceed 45% of the length of that boundary
- (g) will not be located within 3m of any other wall along the same boundary unless on an adjacent site on that boundary there is an existing wall of a building that would be adjacent to or about the proposed wall or structure
- (h) have a wall height or post height not exceeding 3m above natural ground level (and not including a gable end)
- (i) have a roof height where no part of the roof is more than 5m above the natural ground level
- (j) if clad in sheet metal, is pre-colour treated or painted in a non-reflective colour
- (k) retains a total area of soft landscaping in accordance with (i) or (ii), whichever is less:
  - (i) a total area as determined by the following table:

Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site
<150	10%
150-200	15%
201-450	20%
>450	25%

- (ii) the amount of existing soft landscaping prior to the development occurring.

PO 13.2

DTS/DPF 13.2

<p>Ancillary buildings and structures do not impede on-site functional requirements such as private open space provision or car parking requirements and do not result in over-development of the site.</p>	<p>Ancillary buildings and structures do not result in:</p> <ul style="list-style-type: none"> <li>(a) less private open space than specified in Design in Urban Areas Table 1 - Private Open Space</li> <li>(b) less on-site car parking than specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</li> </ul>
<p>PO 13.3 Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa is positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers.</p>	<p>DTS/DPF 13.3 The pump and/or filtration system is ancillary to a dwelling erected on the same site and is:</p> <ul style="list-style-type: none"> <li>(a) enclosed in a solid acoustic structure that is located at least 5m from the nearest habitable room located on an adjoining allotment or</li> <li>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</li> </ul>
<p>Garage appearance</p>	
<p>PO 14.1 Garaging is designed to not detract from the streetscape or appearance of a dwelling.</p>	<p>DTS/DPF 14.1 Garages and carports facing a street:</p> <ul style="list-style-type: none"> <li>(a) are situated so that no part of the garage or carport is in front of any part of the building line of the dwelling</li> <li>(b) are set back at least 5.5m from the boundary of the primary street</li> <li>(c) have a garage door / opening not exceeding 7m in width</li> <li>(d) have a garage door /opening width not exceeding 50% of the site frontage unless the dwelling has two or more building levels at the building line fronting the same public street.</li> </ul>
<p>Massing</p>	
<p>PO 15.1 The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.</p>	<p>DTS/DPF 15.1 None are applicable</p>
<p>Dwelling additions</p>	
<p>PO 16.1 Dwelling additions are sited and designed to not detract from the streetscape or amenity of adjoining properties and do not impede on-site functional requirements.</p>	<p>DTS / DPF 16.1 Dwelling additions:</p> <ul style="list-style-type: none"> <li>(a) are not constructed, added to or altered so that any part is situated closer to a public street</li> <li>(b) do not result in:             <ul style="list-style-type: none"> <li>(i) excavation exceeding a vertical height of 1m</li> <li>(ii) filling exceeding a vertical height of 1m</li> <li>(iii) a total combined excavation and filling vertical height of 2m or more</li> <li>(iv) less Private Open Space than specified in Design Table 1 - Private Open Space</li> <li>(v) less on-site parking than specified in Transport Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas</li> <li>(vi) upper level windows facing side or rear boundaries unless:                 <ul style="list-style-type: none"> <li>A. they are permanently obscured to a height of 1.5m above finished floor level that is fixed or not capable of being opened more than 200mm or</li> <li>B. have sill heights greater than or equal to 1.5m above finished floor level or</li> <li>C. incorporate screening to a height of 1.5m above finished floor level</li> </ul> </li> <li>(vii) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of:                 <ul style="list-style-type: none"> <li>A. 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land</li> </ul> </li> </ul> </li> </ul>

	B. 1.7m above finished floor level in all other cases.
Private Open Space	
PO 17.1 Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.	DTS/DPF 17.1 Private open space is provided in accordance with Design Table 1 - Private Open Space.
Water Sensitive Design	
PO 18.1 Residential development creating a common driveway / access includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	DTS/DPF 18.1 Residential development creating a common driveway / access that services 5 or more dwellings achieves the following stormwater runoff outcomes:  (a) 80 per cent reduction in average annual total suspended solids (b) 60 per cent reduction in average annual total phosphorus (c) 45 per cent reduction in average annual total nitrogen.
PO 18.2 Residential development creating a common driveway / access includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 18.2 Development creating a common driveway / access that services 5 or more dwellings:  (a) maintains the pre-development peak flow rate from the site based upon a 0.35 runoff coefficient for the 18.1% AEP 30-minute storm and the stormwater runoff time to peak is not increased or captures and retains the difference in pre-development runoff volume (based upon a 0.35 runoff coefficient) vs post development runoff volume from the site for an 18.1% AEP 30-minute storm; and (b) manages site generated stormwater runoff up to and including the 1% AEP flood event to avoid flooding of buildings.
Car parking, access and manoeuvrability	
PO 19.1 Enclosed parking spaces are of a size and dimensions to be functional, accessible and convenient.	DTS/DPF 19.1 Residential car parking spaces enclosed by fencing, walls or other structures have the following internal dimensions (separate from any waste storage area):  (a) single width car parking spaces: (i) a minimum length of 5.4m per space (ii) a minimum width of 3.0m (iii) a minimum garage door width of 2.4m  (b) double width car parking spaces (side by side): (i) a minimum length of 5.4m (ii) a minimum width of 5.4m (iii) minimum garage door width of 2.4m per space.
PO 19.2 Uncovered parking spaces are of a size and dimensions to be functional, accessible and convenient.	DTS/DPF 19.2 Uncovered car parking spaces have:  (a) a minimum length of 5.4m (b) a minimum width of 2.4m (c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m
PO 19.3 Driveways are located and designed to facilitate safe access and egress while maximising land available for street tree planting, landscaped street frontages, domestic waste collection and on-street parking.	DTS/DPF 19.3 Driveways and access points on sites with a frontage to a public road of 10m or less have a width between 3.0 and 3.2 metres measured at the property boundary and are the only access point provided on the site.
PO 19.4 Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.	DTS/DPF 19.4 Vehicle access to designated car parking spaces satisfy (a) or (b):

	<ul style="list-style-type: none"> <li>(a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>(b) where newly proposed:             <ul style="list-style-type: none"> <li>(i) is set back 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>(ii) is set back outside of the marked lines or infrastructure dedicating a pedestrian crossing</li> <li>(iii) does not involve the removal, relocation or damage to of mature street trees, street furniture or utility infrastructure services.</li> </ul> </li> </ul>
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<p>PO 19.5</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>	<p>DTS/DPF 19.5</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> <li>(a) the gradient from the place of access on the boundary of the allotment to the finished floor level at the front of the garage or carport is not steeper than 1:4 on average</li> <li>(b) they are aligned relative to the street boundary so that there is no more than a 20 degree deviation from 90 degrees between the centreline of any dedicated car parking space to which it provides access (measured from the front of that space) and the street boundary</li> <li>(c) if located to provide access from an alley, lane or right of way - the alley, land or right of way is at least 6.2m wide along the boundary of the allotment / site</li> </ul>
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<p>PO 19.6</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.</p>	<p>DTS/DPF 19.6</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>(a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ul>
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Waste storage

<p>PO 20.1</p> <p>Provision is made for the adequate and convenient storage of waste bins in a location screened from public view.</p>	<p>DTS/DPF 20.1</p> <p>None are applicable.</p>
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Design of Transportable Dwellings

<p>PO 21.1</p> <p>The sub-floor space beneath transportable buildings is enclosed to give the appearance of a permanent structure.</p>	<p>DTS/DPF 21.1</p> <p>Buildings satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) are not transportable or</li> <li>(b) the sub-floor space between the building and ground level is clad in a material and finish consistent with the building.</li> </ul>
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Group dwelling, residential flat buildings and battle-axe development

Amenity

<p>PO 22.1</p> <p>Dwellings are of a suitable size to accommodate a layout that is well organised and provides a high standard of amenity for occupants.</p>	<p>DTS/DPF 22.1</p> <p>Dwellings have a minimum internal floor area in accordance with the following table:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Number of bedrooms</th> <th style="text-align: left;">Minimum internal floor area</th> </tr> </thead> <tbody> <tr> <td>Studio</td> <td>35m<sup>2</sup></td> </tr> </tbody> </table>	Number of bedrooms	Minimum internal floor area	Studio	35m <sup>2</sup>
Number of bedrooms	Minimum internal floor area				
Studio	35m <sup>2</sup>				

	1 bedroom	50m <sup>2</sup>
	2 bedroom	65m <sup>2</sup>
	3+ bedrooms	80m <sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom

PO 22.2 The orientation and siting of buildings minimises impacts on the amenity, outlook and privacy of occupants and neighbours.	DTS/DPF 22.2 None are applicable.
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PO 22.3 Development maximises the number of dwellings that face public open space and public streets and limits dwellings oriented towards adjoining properties.	DTS/DPF 22.3 None are applicable.
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PO 22.4 Battle-axe development is appropriately sited and designed to respond to the existing neighbourhood context.	DTS/DPF 22.4 Dwelling sites/allotments are not in the form of a battle-axe arrangement.
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**Communal Open Space**

PO 23.1 Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	DTS/DPF 23.1 None are applicable.
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PO 23.2 Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 23.2 Communal open space incorporates a minimum dimension of 5 metres.
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PO 23.3 Communal open space is designed and sited to:  (a) be conveniently accessed by the dwellings which it services (b) have regard to acoustic, safety, security and wind effects.	DTS/DPF 23.3 None are applicable.
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PO 23.4 Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 23.4 None are applicable.
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PO 23.5 Communal open space is designed and sited to:  (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 23.5 None are applicable.
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**Carparking, access and manoeuvrability**

PO 24.1 Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.	DTS/DPF 24.1 Where on-street parking is available directly adjacent the site, on-street parking is retained adjacent the subject site in accordance with the following requirements:  (a) minimum 0.33 on-street car parks per proposed dwellings (rounded up to the nearest whole number) (b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly (c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.
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PO 24.2	DTS/DPF 24.2
The number of vehicular access points onto public roads is minimised to reduce interruption of the footpath and positively contribute to public safety and walkability.	Access to group dwellings or dwellings within a residential flat building is provided via a single common driveway.
PO 24.3	DTS/DPF 24.3
Residential driveways that service more than one dwelling are designed to allow safe and convenient movement.	Driveways that service more than 1 dwelling or a dwelling on a battle-axe site: <ul style="list-style-type: none"> <li>(a) have a minimum width of 3m</li> <li>(b) for driveways servicing more than 3 dwellings: <ul style="list-style-type: none"> <li>(i) have a width of 5.5m or more and a length of 6m or more at the kerb of the primary street</li> <li>(ii) where the driveway length exceeds 30m, incorporate a passing point at least every 30 metres with a minimum width of 5.5m and a minimum length of 6m.</li> </ul> </li> </ul>
PO 24.4	DTS/DPF 24.4
Residential driveways in a battle-axe configuration are designed to allow safe and convenient movement.	Where in a battle-axe configuration, a driveway servicing one dwelling has a minimum width of 3m.
PO 24.5	DTS/DPF 24.5
Residential driveways that service more than one dwelling are designed to allow passenger vehicles to enter and exit the site and manoeuvre within the site in a safe and convenient manner.	Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre.
PO 24.6	DTS/DPF 24.6
Dwellings are adequately separated from common driveways and manoeuvring areas.	Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.
Soft Landscaping	
PO 25.1	DTS/DPF 25.1
Soft landscaping is provided between dwellings and common driveways to improve the outlook for occupants and appearance of common areas.	Other than where located directly in front of a garage or a building entry, soft landscaping with a minimum dimension of 1m is provided between a dwelling and common driveway.
PO 25.2	DTS/DPF 25.2
Soft landscaping is provided that improves the appearance of common driveways.	Where a common driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).
Site Facilities / Waste Storage	
PO 26.1	DTS/DPF 26.1
Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	None are applicable.
PO 26.2	DTS/DPF 26.2
Provision is made for suitable external clothes drying facilities.	None are applicable.
PO 26.3	DTS/DPF 26.3
Provision is made for suitable household waste and recyclable material storage facilities which are: <ul style="list-style-type: none"> <li>(a) located away, or screened, from public view, and</li> <li>(b) conveniently located in proximity to dwellings and the waste collection point.</li> </ul>	None are applicable.
PO 26.4	DTS/DPF 26.4
Waste and recyclable material storage areas are located away from dwellings.	Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.



PO 26.5 Where waste bins cannot be conveniently collected from the street, provision is made for on-site waste collection, designed to accommodate the safe and convenient access, egress and movement of waste collection vehicles.	DTS/DPF 26.5 None are applicable.
PO 26.6 Services including gas and water meters are conveniently located and screened from public view.	DTS/DPF 26.6 None are applicable.
Supported accommodation and retirement facilities	
Siting and Configuration	
PO 27.1 Supported accommodation and housing for aged persons and people with disabilities is located where on-site movement of residents is not unduly restricted by the slope of the land.	DTS/DPF 27.1 None are applicable.
Movement and Access	
PO 28.1 Development is designed to support safe and convenient access and movement for residents by providing:  (a) ground-level access or lifted access to all units (b) level entry porches, ramps, paths, driveways, passenger loading areas and areas adjacent to footpaths that allow for the passing of wheelchairs and resting places (c) car parks with gradients no steeper than 1-in-40 and of sufficient area to provide for wheelchair manoeuvrability (d) kerb ramps at pedestrian crossing points.	DTS/DPF 28.1 None are applicable.
Communal Open Space	
PO 29.1 Development is designed to provide attractive, convenient and comfortable indoor and outdoor communal areas to be used by residents and visitors.	DTS/DPF 29.1 None are applicable.
PO 29.2 Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	DTS/DPF 29.2 None are applicable.
PO 29.3 Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 29.3 Communal open space incorporates a minimum dimension of 5 metres.
PO 29.4 Communal open space is designed and sited to:  (a) be conveniently accessed by the dwellings which it services (b) have regard to acoustic, safety, security and wind effects.	DTS/DPF 29.4 None are applicable.
PO 29.5 Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 29.5 None are applicable.
PO 29.6 Communal open space is designed and sited to:  (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 29.6 None are applicable.

Site Facilities / Waste Storage	
PO 30.1 Development is designed to provide storage areas for personal items and specialised equipment such as small electric powered vehicles, including facilities for the recharging of small electric powered vehicles.	DTS/DPF 30.1 None are applicable.
PO 30.2 Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	DTS/DPF 30.2 None are applicable.
PO 30.3 Provision is made for suitable external clothes drying facilities.	DTS/DPF 30.3 None are applicable.
PO 30.4 Provision is made for suitable household waste and recyclable material storage facilities conveniently located and screened from public view.	DTS/DPF 30.4 None are applicable.
PO 30.5 Waste and recyclable material storage areas are located away from dwellings.	DTS/DPF 30.5 Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 30.6 Provision is made for on-site waste collection where 10 or more bins are to be collected at any one time.	DTS/DPF 30.6 None are applicable.
PO 30.7 Services including gas and water meters are conveniently located and screened from public view.	DTS/DPF 30.7 None are applicable.
All non-residential development	
Water Sensitive Design	
PO 31.1 Development likely to result in significant risk of export of litter, oil or grease includes stormwater management systems designed to minimise pollutants entering stormwater.	DTS/DPF 31.1 None are applicable.
PO 31.2 Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.	DTS/DPF 31.2 None are applicable.
Wash-down and Waste Loading and Unloading	
PO 32.1 Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, vessels, plant or equipment are:  (a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off (b) paved with an impervious material to facilitate wastewater collection (c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area (d) designed to drain wastewater to either: (i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or (ii) a holding tank and its subsequent removal off-site on a regular basis.	DTS/DPF 32.1 None are applicable.

**Table 1 - Private Open Space**

Dwelling Type	Minimum Rate
Dwelling (at ground level)	Total private open space area: (a) Site area <301m <sup>2</sup> : 24m <sup>2</sup> located behind the building line. (b) Site area ≥ 301m <sup>2</sup> : 60m <sup>2</sup> located behind the building line.  Minimum directly accessible from a living room: 16m <sup>2</sup> / with a minimum dimension 3m.
Dwelling (above ground level)	Studio (no separate bedroom): 4m <sup>2</sup> with a minimum dimension 1.8m  One bedroom: 8m <sup>2</sup> with a minimum dimension 2.1m  Two bedroom dwelling: 11m <sup>2</sup> with a minimum dimension 2.4m  Three + bedroom dwelling: 15m <sup>2</sup> with a minimum dimension 2.6m
Cabin or caravan (permanently fixed to the ground) in a residential park or a caravan and tourist park	Total area: 16m <sup>2</sup> , which may be used as second car parking space, provided on each site intended for residential occupation.

**Design in Urban Areas**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is:  (a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributing to the character of the locality (b) durable - fit for purpose, adaptable and long lasting (c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors (d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All Development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter	DTS/DPF 1.2 None are applicable.

over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the walkability, comfort and safety of the public realm.	
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment are integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by:  (a) positioning plant and equipment discretely, in unobtrusive locations as viewed from public roads and spaces (b) screening rooftop plant and equipment from view (c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses.	DTS/DPF 1.4 Development does not incorporate any structures that protrude beyond the roofline.
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable.
<b>Safety</b>	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development is designed to differentiate public, communal and private areas.	DTS/DPF 2.2 None are applicable.
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings) and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
<b>Landscaping</b>	
PO 3.1 Soft landscaping and tree planting are incorporated to:  (a) minimise heat absorption and reflection (b) maximise shade and shelter (c) maximise stormwater infiltration (d) enhance the appearance of land and streetscapes.	DTS/DPF 3.1 None are applicable.
<b>Environmental Performance</b>	
PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and	DTS/DPF 4.1 None are applicable.

open spaces.	
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
Water Sensitive Design	
PO 5.1 Development is sited and designed to maintain natural hydrological systems without negatively impacting:  (a) the quantity and quality of surface water and groundwater (b) the depth and directional flow of surface water and groundwater (c) the quality and function of natural springs.	DTS/DPF 5.1 None are applicable.
On-site Waste Treatment Systems	
PO 6.1 Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.	DTS/DPF 6.1 Effluent disposal drainage areas do not:  (a) encroach within an area used as private open space or result in less private open space than that specified in Design in Urban Areas Table 1 - Private Open Space (b) use an area also used as a driveway (c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.
Car parking appearance	
PO 7.1 Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on streetscapes through techniques such as: (a) limiting protrusion above finished ground level (b) screening through appropriate planting, fencing and mounding (c) limiting the width of openings and integrating them into the building structure.	DTS/DPF 7.1 None are applicable.
PO 7.2 Vehicle parking areas appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.	DTS/DPF 7.2 None are applicable.
PO 7.3 Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.	DTS/DPF 7.3 None are applicable.
PO 7.4 Street-level vehicle parking areas incorporate tree planting to provide shade, reduce solar heat absorption and reflection.	DTS/DPF 7.4 Vehicle parking areas that are open to the sky and comprise 10 or more car parking spaces include a shade tree with a mature canopy of 4m diameter spaced for each 10 car parking spaces provided and a landscaped strip on any road frontage of a minimum dimension of 1m.
PO 7.5 Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.	DTS/DPF 7.5 Vehicle parking areas comprising 10 or more car parking spaces include soft landscaping with a minimum dimension of:

	<ul style="list-style-type: none"> <li>(a) 1m along all public road frontages and allotment boundaries</li> <li>(b) 1m between double rows of car parking spaces.</li> </ul>
PO 7.6 Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.	DTS/DPF 7.6 None are applicable.
PO 7.7 Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.	DTS/DPF 7.7 None are applicable.
<b>Earthworks and sloping land</b>	
PO 8.1 Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.	DTS/DPF 8.1 Development does not involve any of the following: <ul style="list-style-type: none"> <li>(a) excavation exceeding a vertical height of 1m</li> <li>(b) filling exceeding a vertical height of 1m</li> <li>(c) a total combined excavation and filling vertical height of 2m or more.</li> </ul>
PO 8.2 Driveways and access tracks designed and constructed to allow safe and convenient access on sloping land.	DTS/DPF 8.2 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b): <ul style="list-style-type: none"> <li>(a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway</li> <li>(b) are constructed with an all-weather trafficable surface.</li> </ul>
PO 8.3 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8): <ul style="list-style-type: none"> <li>(a) do not contribute to the instability of embankments and cuttings</li> <li>(b) provide level transition areas for the safe movement of people and goods to and from the development</li> <li>(c) are designed to integrate with the natural topography of the land.</li> </ul>	DTS/DPF 8.3 None are applicable.
PO 8.4 Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on site drainage systems to minimise erosion.	DTS/DPF 8.4 None are applicable.
PO 8.5 Development does not occur on land at risk of landslide or increase the potential for landslide or land surface instability.	DTS/DPF 8.5 None are applicable.
<b>Fences and walls</b>	
PO 9.1 Fences, walls and retaining walls of sufficient height maintain privacy and security without unreasonably impacting visual amenity and adjoining land's access to sunlight or the amenity of public places.	DTS/DPF 9.1 None are applicable.
PO 9.2 Landscaping is incorporated on the low side of retaining walls that are visible from public roads and public open space to minimise visual impacts.	DTS/DPF 9.2 A vegetated landscaped strip 1m wide or more is provided against the low side of a retaining wall.
<b>Overlooking / Visual Privacy (low rise buildings)</b>	
PO 10.1 Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses in neighbourhood-type zones.	DTS/DPF 10.1 Upper level windows facing side or rear boundaries shared with a residential use in a neighbourhood-type zone: <ul style="list-style-type: none"> <li>(a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 125mm</li> <li>(b) have sill heights greater than or equal to 1.5m above finished floor</li> </ul>

	<p>level</p> <p>(c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.</p>
<p>PO 10.2</p> <p>Development mitigates direct overlooking from balconies to habitable rooms and private open space of adjoining residential uses in neighbourhood type zones.</p>	<p>DTS/DPF 10.2</p> <p>One of the following is satisfied:</p> <p>(a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace</p> <p>or</p> <p>(b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of:</p> <p>(i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land</p> <p>or</p> <p>(ii) 1.7m above finished floor level in all other cases</p>
Site Facilities / Waste Storage (excluding low rise residential development)	
<p>PO 11.1</p> <p>Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.</p>	<p>DTS/DPF 11.1</p> <p>None are applicable.</p>
<p>PO 11.2</p> <p>Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space and dwellings.</p>	<p>DTS/DPF 11.2</p> <p>None are applicable.</p>
<p>PO 11.3</p> <p>Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.</p>	<p>DTS/DPF 11.3</p> <p>None are applicable.</p>
<p>PO 11.4</p> <p>Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.</p>	<p>DTS/DPF 11.4</p> <p>None are applicable.</p>
<p>PO 11.5</p> <p>For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate.</p>	<p>DTS/DPF 11.5</p> <p>None are applicable.</p>
All Development - Medium and High Rise	
External Appearance	
<p>PO 12.1</p> <p>Buildings positively contribute to the character of the local area by responding to local context.</p>	<p>DTS/DPF 12.1</p> <p>None are applicable.</p>
<p>PO 12.2</p> <p>Architectural detail at street level and a mixture of materials at lower building levels near the public interface are provided to reinforce a human scale.</p>	<p>DTS/DPF 12.2</p> <p>None are applicable.</p>
<p>PO 12.3</p> <p>Buildings are designed to reduce visual mass by breaking up building elevations into distinct elements.</p>	<p>DTS/DPF 12.3</p> <p>None are applicable.</p>
<p>PO 12.4</p> <p>Boundary walls visible from public land include visually interesting treatments to break up large blank elevations.</p>	<p>DTS/DPF 12.4</p> <p>None are applicable.</p>
<p>PO 12.5</p> <p>External materials and finishes are durable and age well to minimise ongoing maintenance requirements.</p>	<p>DTS/DPF 12.5</p> <p>Buildings utilise a combination of the following external materials and finishes:</p> <p>(a) masonry</p>

	<ul style="list-style-type: none"> <li>(b) natural stone</li> <li>(c) pre-finished materials that minimise staining, discolouring or deterioration.</li> </ul>
<p>PO 12.6</p> <p>Street-facing building elevations are designed to provide attractive, high quality and pedestrian-friendly street frontages.</p>	<p>DTS/DPF 12.6</p> <p>Building street frontages incorporate:</p> <ul style="list-style-type: none"> <li>(a) active uses such as shops or offices</li> <li>(b) prominent entry areas for multi-storey buildings (where it is a common entry)</li> <li>(c) habitable rooms of dwellings</li> <li>(d) areas of communal public realm with public art or the like, where consistent with the zone and/or subzone provisions.</li> </ul>
<p>PO 12.7</p> <p>Entrances to multi-storey buildings are safe, attractive, welcoming, functional and contribute to streetscape character.</p>	<p>DTS/DPF 12.7</p> <p>Entrances to multi-storey buildings are:</p> <ul style="list-style-type: none"> <li>(a) oriented towards the street</li> <li>(b) clearly visible and easily identifiable from the street and vehicle parking areas</li> <li>(c) designed to be prominent, accentuated and a welcoming feature if there are no active or occupied ground floor uses</li> <li>(d) designed to provide shelter, a sense of personal address and transitional space around the entry</li> <li>(e) located as close as practicable to the lift and / or lobby access to minimise the need for long access corridors</li> <li>(f) designed to avoid the creation of potential areas of entrapment.</li> </ul>
<p>PO 12.8</p> <p>Building services, plant and mechanical equipment are screened from the public realm.</p>	<p>DTS/DPF 12.8</p> <p>None are applicable.</p>

Landscaping

<p>PO 13.1</p> <p>Development facing a street provides a well landscaped area that contains a deep soil space to accommodate a tree of a species and size adequate to provide shade, contribute to tree canopy targets and soften the appearance of buildings.</p>	<p>DTS/DPF 13.1</p> <p>Buildings provide a 4m by 4m deep soil space in front of the building that accommodates a medium to large tree, except where no building setback from front property boundaries is desired.</p>																				
<p>PO 13.2</p> <p>Deep soil zones are provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies to provide shade and soften the appearance of multi-storey buildings.</p>	<p>DTS/DPF 13.2</p> <p>Multi-storey development provides deep soil zones and incorporates trees at not less than the following rates, except in a location or zone where full site coverage is desired.</p> <table border="1"> <thead> <tr> <th>Site area</th> <th>Minimum deep soil area</th> <th>Minimum dimension</th> <th>Tree / deep soil zones</th> </tr> </thead> <tbody> <tr> <td>&lt;300 m<sup>2</sup></td> <td>10 m<sup>2</sup></td> <td>1.5m</td> <td>1 small tree / 10 m<sup>2</sup></td> </tr> <tr> <td>300-1500 m<sup>2</sup></td> <td>7% site area</td> <td>3m</td> <td>1 medium tree / 30 m<sup>2</sup></td> </tr> <tr> <td>&gt;1500 m<sup>2</sup></td> <td>7% site area</td> <td>6m</td> <td>1 large or medium tree / 60 m<sup>2</sup></td> </tr> </tbody> </table> <p><b>Tree size and site area definitions</b></p> <table border="1"> <tbody> <tr> <td>Small tree</td> <td>4-6m mature height and 2-4m canopy spread</td> </tr> <tr> <td>Medium tree</td> <td>6-12m mature height and 4-8m canopy spread</td> </tr> </tbody> </table>	Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones	<300 m <sup>2</sup>	10 m <sup>2</sup>	1.5m	1 small tree / 10 m <sup>2</sup>	300-1500 m <sup>2</sup>	7% site area	3m	1 medium tree / 30 m <sup>2</sup>	>1500 m <sup>2</sup>	7% site area	6m	1 large or medium tree / 60 m <sup>2</sup>	Small tree	4-6m mature height and 2-4m canopy spread	Medium tree	6-12m mature height and 4-8m canopy spread
Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones																		
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Small tree	4-6m mature height and 2-4m canopy spread																				
Medium tree	6-12m mature height and 4-8m canopy spread																				



	Large tree	12m mature height and >8m canopy spread
	Site area	The total area for development site, not average area per dwelling
PO 13.3 Deep soil zones with access to natural light are provided to assist in maintaining vegetation health.	DTS/DPF 13.3	None are applicable.
PO 13.4 Unless separated by a public road or reserve, development sites adjacent to any zone that has a primary purpose of accommodating low-rise residential development incorporate a deep soil zone along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more building levels in height.	DTS/DPF 13.4	Building elements of 3 or more building levels in height are set back at least 6m from a zone boundary in which a deep soil zone area is incorporated.
<b>Environmental</b>		
PO 14.1 Development minimises detrimental micro-climatic impacts on adjacent land and buildings.	DTS/DPF 14.1	None are applicable.
PO 14.2 Development incorporates sustainable design techniques and features such as window orientation, eaves and shading structures, water harvesting and use, green walls and roof designs that enable the provision of rain water tanks (where they are not provided elsewhere on site), green roofs and photovoltaic cells.	DTS/DPF 14.2	None are applicable.
PO 14.3 Development of 5 or more building levels, or 21m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as:  (a) a podium at the base of a tall tower and aligned with the street to deflect wind away from the street (b) substantial verandahs around a building to deflect downward travelling wind flows over pedestrian areas (c) the placement of buildings and use of setbacks to deflect the wind at ground level (d) avoiding tall shear elevations that create windy conditions at street level.	DTS/DPF 14.3	None are applicable.
<b>Car Parking</b>		
PO 15.1 Multi-level vehicle parking structures are designed to contribute to active street frontages and complement neighbouring buildings.	DTS/DPF 15.1	Multi-level vehicle parking structures within buildings:  (a) provide land uses such as commercial, retail or other non-car parking uses along ground floor street frontages (b) incorporate facade treatments in building elevations facing along major street frontages that are sufficiently enclosed and detailed to complement adjacent buildings.
PO 15.2 Multi-level vehicle parking structures within buildings complement the surrounding built form in terms of height, massing and scale.	DTS/DPF 15.2	None are applicable.
<b>Overlooking/Visual Privacy</b>		
PO 16.1 Development mitigates direct overlooking of habitable rooms and private open spaces of adjacent residential uses in neighbourhood-type zones through measures such as:	DTS/DPF 16.1	None are applicable.

<ul style="list-style-type: none"> <li>(a) appropriate site layout and building orientation</li> <li>(b) off-setting the location of balconies and windows of habitable rooms or areas with those of other buildings so that views are oblique rather than direct to avoid direct line of sight</li> <li>(c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms</li> <li>(d) screening devices that are integrated into the building design and have minimal negative effect on residents' or neighbours' amenity.</li> </ul>	
All residential development	
Front elevations and passive surveillance	
<p>PO 17.1</p> <p>Dwellings incorporate windows facing primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.</p>	<p>DTS/DPF 17.1</p> <p>Each dwelling with a frontage to a public street:</p> <ul style="list-style-type: none"> <li>(a) includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m</li> <li>(b) has an aggregate window area of at least 2m<sup>2</sup> facing the primary street.</li> </ul>
<p>PO 17.2</p> <p>Dwellings incorporate entry doors within street frontages to address the street and provide a legible entry point for visitors.</p>	<p>DTS/DPF 17.2</p> <p>Dwellings with a frontage to a public street have an entry door visible from the primary street boundary.</p>
Outlook and Amenity	
<p>PO 18.1</p> <p>Living rooms have an external outlook to provide a high standard of amenity for occupants.</p>	<p>DTS/DPF 18.1</p> <p>A living room of a dwelling incorporates a window with an external outlook of the street frontage, private open space, public open space, or waterfront areas.</p>
<p>PO 18.2</p> <p>Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.</p>	<p>DTS/DPF 18.2</p> <p>None are applicable.</p>
Ancillary Development	
<p>PO 19.1</p> <p>Residential ancillary buildings are sited and designed to not detract from the streetscape or appearance of primary residential buildings on the site or neighbouring properties.</p>	<p>DTS/DPF 19.1</p> <p>Ancillary buildings:</p> <ul style="list-style-type: none"> <li>(a) are ancillary to a dwelling erected on the same site</li> <li>(b) have a floor area not exceeding 60m<sup>2</sup></li> <li>(c) are not constructed, added to or altered so that any part is situated:             <ul style="list-style-type: none"> <li>(i) in front of any part of the building line of the dwelling to which it is ancillary</li> <li>or</li> <li>(ii) within 900mm of a boundary of the allotment with a secondary street (if the land has boundaries on two or more roads)</li> </ul> </li> <li>(d) in the case of a garage or carport, the garage or carport:             <ul style="list-style-type: none"> <li>(i) is set back at least 5.5m from the boundary of the primary street</li> <li>(ii) when facing a primary street or secondary street, has a total door / opening not exceeding:                 <ul style="list-style-type: none"> <li>A. for dwellings of single building level - 7m in width or 50% of the site frontage, whichever is the lesser</li> <li>B. for dwellings comprising two or more building levels at the building line fronting the same public street - 7m in width</li> </ul> </li> </ul> </li> <li>(e) if situated on a boundary (not being a boundary with a primary street or secondary street), do not exceed a length of 11.5m unless:             <ul style="list-style-type: none"> <li>(i) a longer wall or structure exists on the adjacent site and is situated on the same allotment boundary and</li> <li>(ii) the proposed wall or structure will be built along the same length of boundary as the existing adjacent wall or structure</li> </ul> </li> </ul>

	<p>to the same or lesser extent</p> <ul style="list-style-type: none"> <li>(f) if situated on a boundary of the allotment (not being a boundary with a primary street or secondary street), all walls or structures on the boundary will not exceed 45% of the length of that boundary</li> <li>(g) will not be located within 3m of any other wall along the same boundary unless on an adjacent site on that boundary there is an existing wall of a building that would be adjacent to or about the proposed wall or structure</li> <li>(h) have a wall height or post height not exceeding 3m above natural ground level (and not including a gable end)</li> <li>(i) have a roof height where no part of the roof is more than 5m above the natural ground level</li> <li>(j) if clad in sheet metal, is pre-colour treated or painted in a non-reflective colour</li> <li>(k) retains a total area of soft landscaping in accordance with (i) or (ii), whichever is less:             <ul style="list-style-type: none"> <li>(i) a total area as determined by the following table:                 <table border="1"> <thead> <tr> <th>Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th> <th>Minimum percentage of site</th> </tr> </thead> <tbody> <tr> <td>&lt;150</td> <td>10%</td> </tr> <tr> <td>150-200</td> <td>15%</td> </tr> <tr> <td>201-450</td> <td>20%</td> </tr> <tr> <td>&gt;450</td> <td>25%</td> </tr> </tbody> </table> </li> <li>(ii) the amount of existing soft landscaping prior to the development occurring.</li> </ul> </li> </ul>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	150-200	15%	201-450	20%	>450	25%
Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site										
<150	10%										
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201-450	20%										
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<p>PO 19.2</p> <p>Ancillary buildings and structures do not impede on-site functional requirements such as private open space provision, car parking requirements or result in over-development of the site.</p>	<p>DTS/DPF 19.2</p> <p>Ancillary buildings and structures do not result in:</p> <ul style="list-style-type: none"> <li>(a) less private open space than specified in Design in Urban Areas Table 1 - Private Open Space</li> <li>(b) less on-site car parking than specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</li> </ul>
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<p>PO 19.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers.</p>	<p>DTS/DPF 19.3</p> <p>The pump and/or filtration system is ancillary to a dwelling erected on the same site and is:</p> <ul style="list-style-type: none"> <li>(a) enclosed in a solid acoustic structure that is located at least 5m from the nearest habitable room located on an adjoining allotment or</li> <li>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</li> </ul>
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Residential Development - Low Rise

External appearance

<p>PO 20.1</p> <p>Garaging is designed to not detract from the streetscape or appearance of a dwelling.</p>	<p>DTS/DPF 20.1</p> <p>Garages and carports facing a street:</p> <ul style="list-style-type: none"> <li>(a) are situated so that no part of the garage or carport will be in front of any part of the building line of the dwelling</li> <li>(b) are set back at least 5.5m from the boundary of the primary street</li> <li>(c) have a garage door / opening width not exceeding 7m</li> <li>(d) have a garage door / opening width not exceeding 50% of the site frontage unless the dwelling has two or more building levels at the building line fronting the same public street.</li> </ul>
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<p>PO 20.2</p>	<p>DTS/DPF 20.2</p>
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<p>Dwelling elevations facing public streets and common driveways make a positive contribution to the streetscape and the appearance of common driveway areas.</p>	<p>Each dwelling includes at least 3 of the following design features within the building elevation facing a primary street, and at least 2 of the following design features within the building elevation facing any other public road (other than a laneway) or a common driveway:</p> <ul style="list-style-type: none"> <li>(a) a minimum of 30% of the building wall is set back an additional 300mm from the building line</li> <li>(b) a porch or portico projects at least 1m from the building wall</li> <li>(c) a balcony projects from the building wall</li> <li>(d) a verandah projects at least 1m from the building wall</li> <li>(e) eaves of a minimum 400mm width extend along the width of the front elevation</li> <li>(f) a minimum 30% of the width of the upper level projects forward from the lower level primary building line by at least 300mm</li> <li>(g) a minimum of two different materials or finishes are incorporated on the walls of the front building elevation, with a maximum of 80% of the building elevation in a single material or finish.</li> </ul>
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<p>PO 20.3 The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.</p>	<p>DTS/DPF 20.3 None are applicable</p>
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**Private Open Space**

<p>PO 21.1 Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.</p>	<p>DTS/DPF 21.1 Private open space is provided in accordance with Design in Urban Areas Table 1 - Private Open Space.</p>
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<p>PO 21.2 Private open space is positioned to provide convenient access from internal living areas.</p>	<p>DTS/DPF 21.2 Private open space is directly accessible from a habitable room.</p>
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**Landscaping**

<p>PO 22.1 Soft landscaping is incorporated into development to:</p> <ul style="list-style-type: none"> <li>(a) minimise heat absorption and reflection</li> <li>(b) contribute shade and shelter</li> <li>(c) provide for stormwater infiltration and biodiversity</li> <li>(d) enhance the appearance of land and streetscapes.</li> </ul>	<p>DTS/DPF 22.1 Residential development incorporates soft landscaping with a minimum dimension of 700mm provided in accordance with (a) and (b):</p> <ul style="list-style-type: none"> <li>(a) a total area as determined by the following table:                     <table border="1" style="margin-left: 20px;"> <thead> <tr> <th style="background-color: #2c5e8c; color: white;">Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th> <th style="background-color: #2c5e8c; color: white;">Minimum percentage of site</th> </tr> </thead> <tbody> <tr> <td>&lt;150</td> <td>10%</td> </tr> <tr> <td>150-200</td> <td>15%</td> </tr> <tr> <td>&gt;200-450</td> <td>20%</td> </tr> <tr> <td>&gt;450</td> <td>25%</td> </tr> </tbody> </table> </li> <li>(b) at least 30% of any land between the primary street boundary and the primary building line.</li> </ul>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	150-200	15%	>200-450	20%	>450	25%
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<150	10%										
150-200	15%										
>200-450	20%										
>450	25%										

**Car parking, access and manoeuvrability**

<p>PO 23.1 Enclosed car parking spaces are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 23.1 Residential car parking spaces enclosed by fencing, walls or other structures have the following internal dimensions (separate from any waste storage</p>
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	<p>area):</p> <ul style="list-style-type: none"> <li>(a) single width car parking spaces: <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m per space</li> <li>(ii) a minimum width of 3.0m</li> <li>(iii) a minimum garage door width of 2.4m</li> </ul> </li> <li>(b) double width car parking spaces (side by side): <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m</li> <li>(ii) a minimum width of 5.4m</li> <li>(iii) minimum garage door width of 2.4m per space.</li> </ul> </li> </ul>
<p>PO 23.2</p> <p>Uncovered car parking space are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 23.2</p> <p>Uncovered car parking spaces have:</p> <ul style="list-style-type: none"> <li>(a) a minimum length of 5.4m</li> <li>(b) a minimum width of 2.4m</li> <li>(c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m.</li> </ul>
<p>PO 23.3</p> <p>Driveways and access points are located and designed to facilitate safe access and egress while maximising land available for street tree planting, domestic waste collection, landscaped street frontages and on-street parking.</p>	<p>DTS/DPF 23.3</p> <p>Driveways and access points satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) sites with a frontage to a public road of 10m or less, have a width between 3.0 and 3.2 metres measured at the property boundary and are the only access point provided on the site</li> <li>(b) sites with a frontage to a public road greater than 10m: <ul style="list-style-type: none"> <li>(i) have a maximum width of 5m measured at the property boundary and are the only access point provided on the site;</li> <li>(ii) have a width between 3.0 metres and 3.2 metres measured at the property boundary and no more than two access points are provided on site, separated by no less than 1m.</li> </ul> </li> </ul>
<p>PO 23.4</p> <p>Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.</p>	<p>DTS/DPF 23.4</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>(b) where newly proposed, is set back: <ul style="list-style-type: none"> <li>(i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner</li> <li>(ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance</li> <li>(iii) 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>(iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.</li> </ul> </li> </ul>
<p>PO 23.5</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>	<p>DTS/DPF 23.5</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> <li>(a) the gradient from the place of access on the boundary of the allotment to the finished floor level at the front of the garage or carport is not steeper than 1-in-4 on average</li> <li>(b) they are aligned relative to the street so that there is no more than a 20 degree deviation from 90 degrees between the centreline of any dedicated car parking space to which it provides access (measured from the front of that space) and the road boundary.</li> <li>(c) if located so as to provide access from an alley, lane or right of way - the alley, lane or right of way is at least 6.2m wide along the boundary of the allotment / site</li> </ul>
<p>PO 23.6</p>	<p>DTS/DPF 23.6</p>

<p>Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.</p>	<p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>(a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ul>
<b>Waste storage</b>	
<p>PO 24.1</p> <p>Provision is made for the convenient storage of waste bins in a location screened from public view.</p>	<p>DTS/DPF 24.1</p> <p>Where dwellings abut both side boundaries a waste bin storage area is provided behind the building line of each dwelling that:</p> <ul style="list-style-type: none"> <li>(a) has a minimum area of 2m<sup>2</sup> with a minimum dimension of 900mm (separate from any designated car parking spaces or private open space); and</li> <li>(b) has a continuous unobstructed path of travel (excluding moveable objects like gates, vehicles and roller doors) with a minimum width of 800mm between the waste bin storage area and the street.</li> </ul>
<b>Design of Transportable Buildings</b>	
<p>PO 25.1</p> <p>The sub-floor space beneath transportable buildings is enclosed to give the appearance of a permanent structure.</p>	<p>DTS/DPF 25.1</p> <p>Buildings satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) are not transportable</li> <li>(b) the sub-floor space between the building and ground level is clad in a material and finish consistent with the building.</li> </ul>
Residential Development - Medium and High Rise (including serviced apartments)	
<b>Outlook and Visual Privacy</b>	
<p>PO 26.1</p> <p>Ground level dwellings have a satisfactory short range visual outlook to public, communal or private open space.</p>	<p>DTS/DPF 26.1</p> <p>Buildings:</p> <ul style="list-style-type: none"> <li>(a) provide a habitable room at ground or first level with a window facing toward the street</li> <li>(b) limit the height / extent of solid walls or fences facing the street to 1.2m high above the footpath level or, where higher, to 50% of the site frontage.</li> </ul>
<p>PO 26.2</p> <p>The visual privacy of ground level dwellings within multi-level buildings is protected.</p>	<p>DTS/DPF 26.2</p> <p>The finished floor level of ground level dwellings in multi-storey developments is raised by up to 1.2m.</p>
<b>Private Open Space</b>	
<p>PO 27.1</p> <p>Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.</p>	<p>DTS/DPF 27.1</p> <p>Private open space provided in accordance with Design in Urban Areas Table 1 - Private Open Space.</p>
<b>Residential amenity in multi-level buildings</b>	
<p>PO 28.1</p> <p>Residential accommodation within multi-level buildings have habitable rooms, windows and balconies designed and positioned to be separated from those of other dwellings and accommodation to provide visual and acoustic privacy and allow for natural ventilation and the infiltration of daylight into interior and outdoor spaces.</p>	<p>DTS/DPF 28.1</p> <p>Habitable rooms and balconies of independent dwellings and accommodation are separated by at least 6m from one another where there is a direct line of sight between them and 3m or more from a side or rear property boundary.</p>
<p>PO 28.2</p> <p>Balconies are designed, positioned and integrated into the overall architectural form and detail of the development to:</p> <ul style="list-style-type: none"> <li>(a) respond to daylight, wind, and acoustic conditions to maximise</li> </ul>	<p>DTS/DPF 28.2</p> <p>Balconies utilise one or a combination of the following design elements:</p> <ul style="list-style-type: none"> <li>(a) sun screens</li> <li>(b) pergolas</li> </ul>

<p>(b) comfort and provide visual privacy allow views and casual surveillance of the street while providing for safety and visual privacy of nearby living spaces and private outdoor areas.</p>	<p>(c) louvres (d) green facades (e) openable walls.</p>
<p>PO 28.3 Balconies are of sufficient size and depth to accommodate outdoor seating and promote indoor / outdoor living.</p>	<p>DTS/DPF 28.3 Balconies open directly from a habitable room and incorporate a minimum dimension of 2m.</p>
<p>PO 28.4 Dwellings are provided with sufficient space for storage to meet likely occupant needs.</p>	<p>DTS/DPF 28.4 Dwellings (not including student accommodation or serviced apartments) are provided with storage at the following rates with at least 50% or more of the storage volume to be provided within the dwelling:</p> <p>(a) studio: not less than 6m<sup>3</sup> (b) 1 bedroom dwelling / apartment: not less than 8m<sup>3</sup> (c) 2 bedroom dwelling / apartment: not less than 10m<sup>3</sup> (d) 3+ bedroom dwelling / apartment: not less than 12m<sup>3</sup>.</p>
<p>PO 28.5 Dwellings that use light wells for access to daylight, outlook and ventilation for habitable rooms, are designed to ensure a reasonable living amenity is provided.</p>	<p>DTS/DPF 28.5 Light wells:</p> <p>(a) are not used as the primary source of outlook for living rooms (b) up to 18m in height have a minimum horizontal dimension of 3m, or 6m if overlooked by bedrooms (c) above 18m in height have a minimum horizontal dimension of 6m, or 9m if overlooked by bedrooms.</p>
<p>PO 28.6 Attached or abutting dwellings are designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.</p>	<p>DTS/DPF 28.6 None are applicable.</p>
<p>PO 28.7 Dwellings are designed so that internal structural columns correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.</p>	<p>DTS/DPF 28.7 None are applicable.</p>
<b>Dwelling Configuration</b>	
<p>PO 29.1 Buildings containing in excess of 10 dwellings provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling to contribute to housing diversity.</p>	<p>DTS/DPF 29.1 Buildings containing in excess of 10 dwellings provide at least one of each of the following:</p> <p>(a) studio (where there is no separate bedroom) (b) 1 bedroom dwelling / apartment with a floor area of at least 50m<sup>2</sup> (c) 2 bedroom dwelling / apartment with a floor area of at least 65m<sup>2</sup> (d) 3+ bedroom dwelling / apartment with a floor area of at least 80m<sup>2</sup>, and any dwelling over 3 bedrooms provides an additional 15m<sup>2</sup> for every additional bedroom.</p>
<p>PO 29.2 Dwellings located on the ground floor of multi-level buildings with 3 or more bedrooms have the windows of their habitable rooms overlooking internal courtyard space or other public space, where possible.</p>	<p>DTS/DPF 29.2 None are applicable.</p>
<b>Common Areas</b>	
<p>PO 30.1 The size of lifts, lobbies and corridors is sufficient to accommodate movement of bicycles, strollers, mobility aids and visitor waiting areas.</p>	<p>DTS/DPF 30.1 Common corridor or circulation areas:</p> <p>(a) have a minimum ceiling height of 2.7m (b) provide access to no more than 8 dwellings (c) incorporate a wider section at apartment entries where the corridors exceed 12m in length from a core.</p>
Group Dwellings, Residential Flat Buildings and Battle axe Development	

Amenity											
<p>PO 31.1</p> <p>Dwellings are of a suitable size to provide a high standard of amenity for occupants.</p>	<p>DTS/DPF 31.1</p> <p>Dwellings have a minimum internal floor area in accordance with the following table:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Number of bedrooms</th> <th style="text-align: center;">Minimum internal floor area</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Studio</td> <td style="text-align: center;">35m<sup>2</sup></td> </tr> <tr> <td style="text-align: center;">1 bedroom</td> <td style="text-align: center;">50m<sup>2</sup></td> </tr> <tr> <td style="text-align: center;">2 bedroom</td> <td style="text-align: center;">65m<sup>2</sup></td> </tr> <tr> <td style="text-align: center;">3+ bedrooms</td> <td style="text-align: center;">80m<sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m<sup>2</sup> for every additional bedroom</td> </tr> </tbody> </table>	Number of bedrooms	Minimum internal floor area	Studio	35m <sup>2</sup>	1 bedroom	50m <sup>2</sup>	2 bedroom	65m <sup>2</sup>	3+ bedrooms	80m <sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom
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2 bedroom	65m <sup>2</sup>										
3+ bedrooms	80m <sup>2</sup> and any dwelling over 3 bedrooms provides an additional 15m <sup>2</sup> for every additional bedroom										
<p>PO 31.2</p> <p>The orientation and siting of buildings minimises impacts on the amenity, outlook and privacy of occupants and neighbours.</p>	<p>DTS/DPF 31.2</p> <p>None are applicable.</p>										
<p>PO 31.3</p> <p>Development maximises the number of dwellings that face public open space and public streets and limits dwellings oriented towards adjoining properties.</p>	<p>DTS/DPF 31.3</p> <p>None are applicable.</p>										
<p>PO 31.4</p> <p>Battle-axe development is appropriately sited and designed to respond to the existing neighbourhood context.</p>	<p>DTS/DPF 31.4</p> <p>Dwelling sites/allotments are not in the form of a battle-axe arrangement.</p>										
Communal Open Space											
<p>PO 32.1</p> <p>Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.</p>	<p>DTS/DPF 32.1</p> <p>None are applicable.</p>										
<p>PO 32.2</p> <p>Communal open space is of sufficient size and dimensions to cater for group recreation.</p>	<p>DTS/DPF 32.2</p> <p>Communal open space incorporates a minimum dimension of 5 metres.</p>										
<p>PO 32.3</p> <p>Communal open space is designed and sited to:</p> <ul style="list-style-type: none"> <li>(a) be conveniently accessed by the dwellings which it services</li> <li>(b) have regard to acoustic, safety, security and wind effects.</li> </ul>	<p>DTS/DPF 32.3</p> <p>None are applicable.</p>										
<p>PO 32.4</p> <p>Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.</p>	<p>DTS/DPF 32.4</p> <p>None are applicable.</p>										
<p>PO 32.5</p> <p>Communal open space is designed and sited to:</p> <ul style="list-style-type: none"> <li>(a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings</li> <li>(b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.</li> </ul>	<p>DTS/DPF 32.5</p> <p>None are applicable.</p>										
Car parking, access and manoeuvrability											
<p>PO 33.1</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.</p>	<p>DTS/DPF 33.1</p> <p>Where on-street parking is available directly adjacent the site, on-street parking is retained adjacent the subject site in accordance with the following requirements:</p>										



	<ul style="list-style-type: none"> <li>(a) minimum 0.33 on-street car parks per proposed dwelling (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ul>
PO 33.2 The number of vehicular access points onto public roads is minimised to reduce interruption of the footpath and positively contribute to public safety and walkability.	DTS/DPF 33.2 Access to group dwellings or dwellings within a residential flat building is provided via a single common driveway.
PO 33.3 Residential driveways that service more than one dwelling are designed to allow safe and convenient movement.	DTS/DPF 33.3 Driveways that service more than 1 dwelling or a dwelling on a battle-axe site: <ul style="list-style-type: none"> <li>(a) have a minimum width of 3m</li> <li>(b) for driveways servicing more than 3 dwellings: <ul style="list-style-type: none"> <li>(i) have a width of 5.5m or more and a length of 6m or more at the kerb of the primary street</li> <li>(ii) where the driveway length exceeds 30m, incorporate a passing point at least every 30 metres with a minimum width of 5.5m and a minimum length of 6m.</li> </ul> </li> </ul>
PO 33.4 Residential driveways that service more than one dwelling or a dwelling on a battle-axe site are designed to allow passenger vehicles to enter and exit and manoeuvre within the site in a safe and convenient manner.	DTS/DPF 33.4 Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre.
PO 33.5 Dwellings are adequately separated from common driveways and manoeuvring areas.	DTS/DPF 33.5 Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.
<b>Soft landscaping</b>	
PO 34.1 Soft landscaping is provided between dwellings and common driveways to improve the outlook for occupants and appearance of common areas.	DTS/DPF 34.1 Other than where located directly in front of a garage or building entry, soft landscaping with a minimum dimension of 1m is provided between a dwelling and common driveway.
PO 34.2 Battle-axe or common driveways incorporate landscaping and permeability to improve appearance and assist in stormwater management.	DTS/DPF 34.2 Battle-axe or common driveways satisfy (a) and (b): <ul style="list-style-type: none"> <li>(a) are constructed of a minimum of 50% permeable or porous material</li> <li>(b) where the driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).</li> </ul>
<b>Site Facilities / Waste Storage</b>	
PO 35.1 Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	DTS/DPF 35.1 None are applicable.
PO 35.2 Provision is made for suitable external clothes drying facilities.	DTS/DPF 35.2 None are applicable.
PO 35.3 Provision is made for suitable household waste and recyclable material storage facilities which are: <ul style="list-style-type: none"> <li>(a) located away, or screened, from public view, and</li> <li>(b) conveniently located in proximity to dwellings and the waste</li> </ul>	DTS/DPF 35.3 None are applicable.

collection point.	
PO 35.4 Waste and recyclable material storage areas are located away from dwellings.	DTS/DPF 35.4 Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 35.5 Where waste bins cannot be conveniently collected from the street, provision is made for on-site waste collection, designed to accommodate the safe and convenient access, egress and movement of waste collection vehicles.	DTS/DPF 35.5 None are applicable.
PO 35.6 Services including gas and water meters are conveniently located and screened from public view.	DTS/DPF 35.6 None are applicable.
Water sensitive urban design	
PO 36.1 Residential development creating a common driveway / access includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	DTS/DPF 36.1 None are applicable.
PO 36.2 Residential development creating a common driveway / access includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 36.2 None are applicable.
Supported Accommodation and retirement facilities	
Siting, Configuration and Design	
PO 37.1 Supported accommodation and housing for aged persons and people with disabilities is located where on-site movement of residents is not unduly restricted by the slope of the land.	DTS/DPF 37.1 None are applicable.
PO 37.2 Universal design features are incorporated to provide options for people living with disabilities or limited mobility and / or to facilitate ageing in place.	DTS/DPF 37.2 None are applicable.
Movement and Access	
PO 38.1 Development is designed to support safe and convenient access and movement for residents by providing:  (a) ground-level access or lifted access to all units (b) level entry porches, ramps, paths, driveways, passenger loading areas and areas adjacent to footpaths that allow for the passing of wheelchairs and resting places (c) car parks with gradients no steeper than 1-in-40, and of sufficient area to provide for wheelchair manoeuvrability (d) kerb ramps at pedestrian crossing points.	DTS/DPF 38.1 None are applicable.
Communal Open Space	
PO 39.1 Development is designed to provide attractive, convenient and comfortable indoor and outdoor communal areas to be used by residents and visitors.	DTS/DPF 39.1 None are applicable.
PO 39.2 Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	DTS/DPF 39.2 None are applicable.

PO 39.3 Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 39.3 Communal open space incorporates a minimum dimension of 5 metres.
PO 39.4 Communal open space is designed and sited to:  (a) be conveniently accessed by the dwellings which it services (b) have regard to acoustic, safety, security and wind effects.	DTS/DPF 39.4 None are applicable.
PO 39.5 Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 39.5 None are applicable.
PO 39.6 Communal open space is designed and sited to:  (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 39.6 None are applicable.
Site Facilities / Waste Storage	
PO 40.1 Development is designed to provide storage areas for personal items and specialised equipment such as small electric powered vehicles, including facilities for the recharging of small electric-powered vehicles.	DTS/DPF 40.1 None are applicable.
PO 40.2 Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.	DTS/DPF 40.2 None are applicable.
PO 40.3 Provision is made for suitable external clothes drying facilities.	DTS/DPF 40.3 None are applicable.
PO 40.4 Provision is made for suitable household waste and recyclable material storage facilities conveniently located away, or screened, from view.	DTS/DPF 40.4 None are applicable.
PO 40.5 Waste and recyclable material storage areas are located away from dwellings.	DTS/DPF 40.5 Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.
PO 40.6 Provision is made for on-site waste collection where 10 or more bins are to be collected at any one time.	DTS/DPF 40.6 None are applicable.
PO 40.7 Services, including gas and water meters, are conveniently located and screened from public view.	DTS/DPF 40.7 None are applicable.
Student Accommodation	
PO 41.1 Student accommodation is designed to provide safe, secure, attractive, convenient and comfortable living conditions for residents, including an internal layout and facilities that are designed to provide sufficient space and amenity for the requirements of student life and promote social interaction.	DTS/DPF 41.1 Student accommodation provides:  (a) a range of living options to meet a variety of accommodation needs, such as one-bedroom, two-bedroom and disability access units (b) common or shared facilities to enable a more efficient use of space, including: (i) shared cooking, laundry and external drying facilities (ii) internal and external communal and private open space

	<p>provided in accordance with Design in Urban Areas Table 1 - Private Open Space</p> <ul style="list-style-type: none"> <li>(iii) common storage facilities at the rate of 8m<sup>3</sup> for every 2 dwellings or students</li> <li>(iv) common on-site parking in accordance with Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas</li> <li>(v) bicycle parking at the rate of one space for every 2 students.</li> </ul>
<p>PO 41.2</p> <p>Student accommodation is designed to provide easy adaptation of the building to accommodate an alternative use of the building in the event it is no longer required for student housing.</p>	<p>DTS/DPF 41.2</p> <p>None are applicable.</p>
<p>All non-residential development</p>	
<p>Water Sensitive Design</p>	
<p>PO 42.1</p> <p>Development likely to result in risk of export of sediment, suspended solids, organic matter, nutrients, oil and grease include stormwater management systems designed to minimise pollutants entering stormwater.</p>	<p>DTS/DPF 42.1</p> <p>None are applicable.</p>
<p>PO 42.2</p> <p>Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.</p>	<p>DTS/DPF 42.2</p> <p>None are applicable.</p>
<p>PO 42.3</p> <p>Development includes stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that development does not increase peak flows in downstream systems.</p>	<p>DTS/DPF 42.3</p> <p>None are applicable.</p>
<p>Wash-down and Waste Loading and Unloading</p>	
<p>PO 43.1</p> <p>Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are:</p> <ul style="list-style-type: none"> <li>(a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off</li> <li>(b) paved with an impervious material to facilitate wastewater collection</li> <li>(c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area</li> <li>(d) are designed to drain wastewater to either:             <ul style="list-style-type: none"> <li>(i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or</li> <li>(ii) a holding tank and its subsequent removal off-site on a regular basis.</li> </ul> </li> </ul>	<p>DTS/DPF 43.1</p> <p>None are applicable.</p>
<p>Laneway Development</p>	
<p>Infrastructure and Access</p>	
<p>PO 44.1</p> <p>Development with a primary street comprising a laneway, alley, lane, right of way or similar minor thoroughfare only occurs where:</p> <ul style="list-style-type: none"> <li>(a) existing utility infrastructure and services are capable of accommodating the development</li> <li>(b) the primary street can support access by emergency and regular service vehicles (such as waste collection)</li> <li>(c) it does not require the provision or upgrading of infrastructure on</li> </ul>	<p>DTS/DPF 44.1</p> <p>Development with a primary street frontage that is not an alley, lane, right of way or similar public thoroughfare.</p>

<p>public land (such as footpaths and stormwater management systems)</p> <p>(d) safety of pedestrians or vehicle movement is maintained</p> <p>(e) any necessary grade transition is accommodated within the site of the development to support an appropriate development intensity and orderly development of land fronting minor thoroughfares.</p>	
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Table 1 - Private Open Space

Dwelling Type	Dwelling / Site Configuration	Minimum Rate
Dwelling (at ground level, other than a residential flat building that includes above ground dwellings)		<p>Total private open space area:</p> <p>(a) Site area &lt;301m<sup>2</sup>: 24m<sup>2</sup> located behind the building line.</p> <p>(b) Site area ≥ 301m<sup>2</sup>: 60m<sup>2</sup> located behind the building line.</p> <p>Minimum directly accessible from a living room: 16m<sup>2</sup> / with a minimum dimension 3m.</p>
Cabin or caravan (permanently fixed to the ground) in a residential park or caravan and tourist park		Total area: 16m <sup>2</sup> , which may be uses as second car parking space, provided on each site intended for residential occupation.
Dwelling in a residential flat building or mixed use building which incorporate above ground level dwellings	Dwellings at ground level:	15m <sup>2</sup> / minimum dimension 3m
	Dwellings above ground level:	
	Studio (no separate bedroom)	4m <sup>2</sup> / minimum dimension 1.8m
	One bedroom dwelling	8m <sup>2</sup> / minimum dimension 2.1m
	Two bedroom dwelling	11m <sup>2</sup> / minimum dimension 2.4m
	Three + bedroom dwelling	15 m <sup>2</sup> / minimum dimension 2.6m

## Forestry

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Commercial forestry is designed and sited to maximise economic benefits whilst managing potential negative impacts on the environment, transport networks, surrounding land uses and landscapes.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria /
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## Designated Performance Feature

Siting	
PO 1.1 Commercial forestry plantations are established where there is no detrimental effect on the physical environment or scenic quality of the rural landscape.	DTS/DPF 1.1 None are applicable.
PO 1.2 Commercial forestry plantations are established on slopes that are stable to minimise the risk of soil erosion.	DTS/DPF 1.2 Commercial forestry plantations are not located on land with a slope exceeding 20% (1-in-5).
PO 1.3 Commercial forestry plantations and operations associated with their establishment, management and harvesting are appropriately set back from any sensitive receiver to minimise fire risk and noise disturbance.	DTS/DPF 1.3 Commercial forestry plantations and operations associated with their establishment, management and harvesting are set back 50m or more from any sensitive receiver.
PO 1.4 Commercial forestry plantations are separated from reserves gazetted under the <i>National Parks and Wildlife Act 1972</i> and/or <i>Wilderness Protection Act 1992</i> to minimise fire risk and potential for weed infestation.	DTS/DPF 1.4 Commercial forestry plantations and operations associated with their establishment, management and harvesting are set back 50m or more from a reserve gazetted under the <i>National Parks and Wildlife Act 1972</i> and/or <i>Wilderness Protection Act 1992</i> .
Water Protection	
PO 2.1 Commercial forestry plantations incorporate artificial drainage lines (i.e. culverts, runoffs and constructed drains) integrated with natural drainage lines to minimise concentrated water flows onto or from plantation areas.	DTS/DPF 2.1 None are applicable.
PO 2.2 Appropriate siting, layout and design measures are adopted to minimise the impact of commercial forestry plantations on surface water resources.	DTS/DPF 2.2 Commercial forestry plantations:  (a) do not involve cultivation (excluding spot cultivation) in drainage lines (b) are set back 20m or more from the banks of any major watercourse (a third order or higher watercourse), lake, reservoir, wetland or sinkhole (with direct connection to an aquifer) (c) are set back 10m or more from the banks of any first or second order watercourse or sinkhole (with no direct connection to an aquifer).
Fire Management	
PO 3.1 Commercial forestry plantations incorporate appropriate firebreaks and fire management design elements.	DTS/DPF 3.1 Commercial forestry plantations provide:  (a) 7m or more wide external boundary firebreaks for plantations of 40ha or less (b) 10m or more wide external boundary firebreaks for plantations of between 40ha and 100ha (c) 20m or more wide external boundary firebreaks, or 10m with an additional 10m or more of fuel-reduced plantation, for plantations of 100ha or greater.
PO 3.2 Commercial forestry plantations incorporate appropriate fire management access tracks.	DTS/DPF 3.2 Commercial forestry plantation fire management access tracks:  (a) are incorporated within all firebreaks (b) are 7m or more wide with a vertical clearance of 4m or more (c) are aligned to provide straight through access at junctions, or if they are a no through access track are appropriately signposted and provide suitable turnaround areas for fire-fighting vehicles (d) partition the plantation into units of 40ha or less in area.
Power-line Clearances	
PO 4.1 Commercial forestry plantations achieve and maintain appropriate clearances from aboveground powerlines.	DTS/DPF 4.1 Commercial forestry plantations incorporating trees with an expected mature height of greater than 6m meet the clearance requirements listed in the

	following table:		
	Voltage of transmission line	Tower or Pole	Minimum horizontal clearance distance between plantings and transmission lines
	500 kV	Tower	38m
	275 kV	Tower	25m
	132 kV	Tower	30m
	132 kV	Pole	20m
	66 kV	Pole	20m
	Less than 66 kV	Pole	20m

**Housing Renewal**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Renewed residential environments replace older social housing and provide new social housing infrastructure and other housing options and tenures to enhance the residential amenity of the local area.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	
PO 1.1 Residential development provides a range of housing choices.	DTS/DPF 1.1 Development comprises one or more of the following:  (a) detached dwellings (b) semi-detached dwellings (c) row dwellings (d) group dwellings (e) residential flat buildings.
PO 1.2 Medium-density housing options or higher are located in close proximity to public transit, open space and/or activity centres.	DTS/DPF 1.2 None are applicable.
Building Height	
PO 2.1 Buildings generally do not exceed 3 building levels unless in locations close to	DTS/DPF 2.1 Building height (excluding garages, carports and outbuildings) does not

public transport, centres and/or open space.	exceed 3 building levels and 12m and wall height does not exceed 9m (not including a gable end).
PO 2.2 Medium or high rise residential flat buildings located within or at the interface with zones which restrict heights to a maximum of 2 building levels transition down in scale and height towards the boundary of that zone, other than where it is a street boundary.	DTS/DPF 2.2 None are applicable.
Primary Street Setback	
PO 3.1 Buildings are set back from the primary street boundary to contribute to an attractive streetscape character.	DTS/DPF 3.1 Buildings are no closer to the primary street (excluding any balcony, verandah, porch, awning or similar structure) than 3m.
Secondary Street Setback	
PO 4.1 Buildings are set back from secondary street boundaries to maintain separation between building walls and public streets and contribute to a suburban streetscape character.	DTS/DPF 4.1 Buildings are set back at least 900mm from the boundary of the allotment with a secondary street frontage.
Boundary Walls	
PO 5.1 Boundary walls are limited in height and length to manage visual impacts and access to natural light and ventilation.	DTS/DPF 5.1 Except where the dwelling is located on a central site within a row dwelling or terrace arrangement, dwellings with side boundary walls are sited on only one side boundary and satisfy (a) or (b):  (a) adjoin or abut a boundary wall of a building on adjoining land for the same length and height (b) do not: (i) exceed 3.2m in height from the lower of the natural or finished ground level (ii) exceed 11.5m in length (iii) when combined with other walls on the boundary of the subject development site, a maximum 45% of the length of the boundary (iv) encroach within 3 metres of any other existing or proposed boundary walls on the subject land.
PO 5.2 Dwellings in a semi-detached, row or terrace arrangement maintain space between buildings consistent with a suburban streetscape character.	DTS/DPF 5.2 Dwellings in a semi-detached or row arrangement are set back 900mm or more from side boundaries shared with allotments outside the development site, except for a carport or garage.
Side Boundary Setback	
PO 6.1 Buildings are set back from side boundaries to provide:  (a) separation between dwellings in a way that contributes to a suburban character (b) access to natural light and ventilation for neighbours.	DTS/DPF 6.1 Other than walls located on a side boundary, buildings are set back from side boundaries:  (a) at least 900mm where the wall height is up to 3m (b) other than for a wall facing a southern side boundary, at least 900mm plus 1/3 of the wall height above 3m (c) at least 1.9m plus 1/3 of the wall height above 3m for walls facing a southern side boundary.
Rear Boundary Setback	
PO 7.1 Buildings are set back from rear boundaries to provide:  (a) separation between dwellings in a way that contributes to a suburban character (b) access to natural light and ventilation for neighbours (c) private open space	DTS/DPF 7.1 Dwellings are set back from the rear boundary:  (a) 3m or more for the first building level (b) 5m or more for any subsequent building level.



(d) space for landscaping and vegetation.							
Buildings elevation design							
<p>PO 8.1</p> <p>Dwelling elevations facing public streets and common driveways make a positive contribution to the streetscape and common driveway areas.</p>	<p>DTS/DPF 8.1</p> <p>Each dwelling includes at least 3 of the following design features within the building elevation facing a primary street, and at least 2 of the following design features within the building elevation facing any other public road (other than a laneway) or a common driveway:</p> <ul style="list-style-type: none"> <li>(a) a minimum of 30% of the building elevation is set back an additional 300mm from the building line</li> <li>(b) a porch or portico projects at least 1m from the building elevation</li> <li>(c) a balcony projects from the building elevation</li> <li>(d) a verandah projects at least 1m from the building elevation</li> <li>(e) eaves of a minimum 400mm width extend along the width of the front elevation</li> <li>(f) a minimum 30% of the width of the upper level projects forward from the lower level primary building line by at least 300mm.</li> <li>(g) a minimum of two different materials or finishes are incorporated on the walls of the building elevation, with a maximum of 80% of the building elevation in a single material or finish.</li> </ul>						
<p>PO 8.2</p> <p>Dwellings incorporate windows along primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.</p>	<p>DTS/DPF 8.2</p> <p>Each dwelling with a frontage to a public street:</p> <ul style="list-style-type: none"> <li>(a) includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m</li> <li>(b) has an aggregate window area of at least 2m<sup>2</sup> facing the primary street</li> </ul>						
<p>PO 8.3</p> <p>The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.</p>	<p>DTS/DPF 8.3</p> <p>None are applicable.</p>						
<p>PO 8.4</p> <p>Built form considers local context and provides a quality design response through scale, massing, materials, colours and architectural expression.</p>	<p>DTS/DPF 8.4</p> <p>None are applicable.</p>						
<p>PO 8.5</p> <p>Entrances to multi-storey buildings are:</p> <ul style="list-style-type: none"> <li>(a) oriented towards the street</li> <li>(b) visible and easily identifiable from the street</li> <li>(c) designed to include a common mail box structure.</li> </ul>	<p>DTS/DPF 8.5</p> <p>None are applicable.</p>						
Outlook and amenity							
<p>PO 9.1</p> <p>Living rooms have an external outlook to provide a high standard of amenity for occupants.</p>	<p>DTS/DPF 9.1</p> <p>A living room of a dwelling incorporates a window with an external outlook towards the street frontage or private open space.</p>						
<p>PO 9.2</p> <p>Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.</p>	<p>DTS/DPF 9.2</p> <p>None are applicable.</p>						
Private Open Space							
<p>PO 10.1</p> <p>Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.</p>	<p>DTS/DPF 10.1</p> <p>Private open space is provided in accordance with the following table:</p> <table border="1"> <thead> <tr> <th>Dwelling Type</th> <th>Dwelling / Site Configuration</th> <th>Minimum Rate</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Dwelling Type	Dwelling / Site Configuration	Minimum Rate			
Dwelling Type	Dwelling / Site Configuration	Minimum Rate					

	Dwelling (at ground level)		Total area: 24m <sup>2</sup> located behind the building line  Minimum adjacent to a living room: 16m <sup>2</sup> with a minimum dimension 3m
	Dwelling (above ground level)	Studio	4m <sup>2</sup> / minimum dimension 1.8m
		One bedroom dwelling	8m <sup>2</sup> / minimum dimension 2.1m
		Two bedroom dwelling	11m <sup>2</sup> / minimum dimension 2.4m
		Three + bedroom dwelling	15 m <sup>2</sup> / minimum dimension 2.6m
<p>PO 10.2</p> <p>Private open space positioned to provide convenient access from internal living areas.</p>	<p>DTS/DPF 10.2</p> <p>At least 50% of the required area of private open space is accessible from a habitable room.</p>		
<p>PO 10.3</p> <p>Private open space is positioned and designed to:</p> <ul style="list-style-type: none"> <li>(a) provide useable outdoor space that suits the needs of occupants;</li> <li>(b) take advantage of desirable orientation and vistas; and</li> <li>(c) adequately define public and private space.</li> </ul>	<p>DTS/DPF 10.3</p> <p>None are applicable.</p>		
Visual privacy			
<p>PO 11.1</p> <p>Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses.</p>	<p>DTS/DPF 11.1</p> <p>Upper level windows facing side or rear boundaries shared with another residential allotment/site satisfy one of the following:</p> <ul style="list-style-type: none"> <li>(a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 200mm</li> <li>(b) have sill heights greater than or equal to 1.5m above finished floor level</li> <li>(c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5m above the finished floor.</li> </ul>		
<p>PO 11.2</p> <p>Development mitigates direct overlooking from upper level balconies and terraces to habitable rooms and private open space of adjoining residential uses.</p>	<p>DTS/DPF 11.2</p> <p>One of the following is satisfied:</p> <ul style="list-style-type: none"> <li>(a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace</li> <li>or</li> <li>(b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of:                             <ul style="list-style-type: none"> <li>(i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land</li> <li>or</li> <li>(ii) 1.7m above finished floor level in all other cases</li> </ul> </li> </ul>		
Landscaping			
<p>PO 12.1</p> <p>Soft landscaping is incorporated into development to:</p>	<p>DTS/DPF 12.1</p> <p>Residential development incorporates pervious areas for soft landscaping</p>		

<ul style="list-style-type: none"> <li>(a) minimise heat absorption and reflection</li> <li>(b) maximise shade and shelter</li> <li>(c) maximise stormwater infiltration and biodiversity</li> <li>(d) enhance the appearance of land and streetscapes.</li> </ul>	<p>with a minimum dimension of 700mm provided in accordance with (a) and (b):</p> <ul style="list-style-type: none"> <li>(a) a total area as determined by the following table:</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m<sup>2</sup>)</th> <th style="text-align: left;">Minimum percentage of site</th> </tr> </thead> <tbody> <tr> <td>&lt;150</td> <td>10%</td> </tr> <tr> <td>&lt;200</td> <td>15%</td> </tr> <tr> <td>200-450</td> <td>20%</td> </tr> <tr> <td>&gt;450</td> <td>25%</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>(b) at least 30% of land between the road boundary and the building line.</li> </ul>	Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site	<150	10%	<200	15%	200-450	20%	>450	25%
Dwelling site area (or in the case of residential flat building or group dwelling(s), average site area) (m <sup>2</sup> )	Minimum percentage of site										
<150	10%										
<200	15%										
200-450	20%										
>450	25%										

Water Sensitive Design

<p>PO 13.1</p> <p>Residential development is designed to capture and use stormwater to:</p> <ul style="list-style-type: none"> <li>(a) maximise efficient use of water resources</li> <li>(b) manage peak stormwater runoff flows and volume to ensure the carrying capacities of downstream systems are not overloaded</li> <li>(c) manage runoff quality to maintain, as close as practical, pre-development conditions.</li> </ul>	<p>DTS/DPF 13.1</p> <p>None are applicable.</p>
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Car Parking

<p>PO 14.1</p> <p>On-site car parking is provided to meet the anticipated demand of residents, with less on-site parking in areas in close proximity to public transport.</p>	<p>DTS/DPF 14.1</p> <p>On-site car parking is provided at the following rates per dwelling:</p> <ul style="list-style-type: none"> <li>(a) 2 or fewer bedrooms - 1 car parking space</li> <li>(b) 3 or more bedrooms - 2 car parking spaces.</li> </ul>
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<p>PO 14.2</p> <p>Enclosed car parking spaces are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 14.2</p> <p>Residential parking spaces enclosed by fencing, walls or other obstructions with the following internal dimensions (separate from any waste storage area):</p> <ul style="list-style-type: none"> <li>(a) single parking spaces:                             <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m</li> <li>(ii) a minimum width of 3.0m</li> <li>(iii) a minimum garage door width of 2.4m</li> </ul> </li> <li>(b) double parking spaces (side by side):                             <ul style="list-style-type: none"> <li>(i) a minimum length of 5.4m</li> <li>(ii) a minimum width of 5.5m</li> <li>(iii) minimum garage door width of 2.4m per space.</li> </ul> </li> </ul>
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<p>PO 14.3</p> <p>Uncovered car parking spaces are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 14.3</p> <p>Uncovered car parking spaces have:</p> <ul style="list-style-type: none"> <li>(a) a minimum length of 5.4m</li> <li>(b) a minimum width of 2.4m</li> <li>(c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m.</li> </ul>
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<p>PO 14.4</p> <p>Residential flat buildings and group dwelling developments provide sufficient on-site visitor car parking to cater for anticipated demand.</p>	<p>DTS/DPF 14.4</p> <p>Visitor car parking for group and residential flat buildings incorporating 4 or more dwellings is provided on-site at a minimum ratio of 0.25 car parking spaces per dwelling.</p>
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<p>PO 14.5</p> <p>Residential flat buildings provide dedicated areas for bicycle parking.</p>	<p>DTS/DPF 14.5</p> <p>Residential flat buildings provide one bicycle parking space per dwelling.</p>
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Overshadowing

<p>PO 15.1</p> <p>Development minimises overshadowing of the private open spaces of</p>	<p>DTS/DPF 15.1</p> <p>None are applicable.</p>
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adjoining land by ensuring that ground level open space associated with residential buildings receive direct sunlight for a minimum of 2 hours between 9am and 3pm on 21 June.	
Waste	
<p>PO 16.1</p> <p>Provision is made for the convenient storage of waste bins in a location screened from public view.</p>	<p>DTS/DPF 16.1</p> <p>A waste bin storage area is provided behind the primary building line that:</p> <ul style="list-style-type: none"> <li>(a) has a minimum area of 2m<sup>2</sup> with a minimum dimension of 900mm (separate from any designated car parking spaces or private open space).; and</li> <li>(b) has a continuous unobstructed path of travel (excluding moveable objects like gates, vehicles and roller doors) with a minimum width of 800mm between the waste bin storage area and the street.</li> </ul>
<p>PO 16.2</p> <p>Residential flat buildings provide a dedicated area for the on-site storage of waste which is:</p> <ul style="list-style-type: none"> <li>(a) easily and safely accessible for residents and for collection vehicles</li> <li>(b) screened from adjoining land and public roads</li> <li>(c) of sufficient dimensions to be able to accommodate the waste storage needs of the development considering the intensity and nature of the development and the frequency of collection.</li> </ul>	<p>DTS/DPF 16.2</p> <p>None are applicable.</p>
Vehicle Access	
<p>PO 17.1</p> <p>Driveways are located and designed to facilitate safe access and egress while maximising land available for street tree planting, landscaped street frontages and on-street parking.</p>	<p>DTS/DPF 17.1</p> <p>None are applicable.</p>
<p>PO 17.2</p> <p>Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.</p>	<p>DTS/DPF 17.2</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> <li>(a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land</li> <li>(b) where newly proposed, is set back: <ul style="list-style-type: none"> <li>(i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner</li> <li>(ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance</li> <li>(iii) 6m or more from the tangent point of an intersection of 2 or more roads</li> <li>(iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.</li> </ul> </li> </ul>
<p>PO 17.3</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>	<p>DTS/DPF 17.3</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> <li>(a) the gradient from the place of access on the boundary of the allotment to the finished floor level at the front of the garage or carport is not more than 1-in-4 on average</li> <li>(b) they are aligned relative to the street so that there is no more than a 20 degree deviation from 90 degrees between the centreline of any dedicated car parking space to which it provides access (measured from the front of that space) and the road boundary.</li> <li>(c) if located so as to provide access from an alley, lane or right of way - the alley, lane or right of way is at least 6.2m wide along the boundary of the allotment / site.</li> </ul>
<p>PO 17.4</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street parking.</p>	<p>DTS/DPF 17.4</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p>

	<ol style="list-style-type: none"> <li>1. minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>2. Minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>3. minimum car park length of 6m for an intermediate space located between two other parking spaces.</li> </ol>
PO 17.5 Residential driveways that service more than one dwelling of a dimension to allow safe and convenient movement.	DTS/DPF 17.5 Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements: <ol style="list-style-type: none"> <li>(a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number)</li> <li>(b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly</li> <li>(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.</li> </ol>
PO 17.6 Residential driveways that service more than one dwelling are designed to allow passenger vehicles to enter and exit the site and manoeuvre within the site in a safe and convenient manner.	DTS/DPF 17.6 Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre
PO 17.7 Dwellings are adequately separated from common driveways and manoeuvring areas.	DTS/DPF 17.7 Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.
Storage	
PO 18.1 Dwellings are provided with sufficient and accessible space for storage to meet likely occupant needs.	DTS/DPF 18.1 Dwellings are provided with storage at the following rates and 50% or more of the storage volume is provided within the dwelling: <ol style="list-style-type: none"> <li>(a) studio: not less than 6m<sup>3</sup></li> <li>(b) 1 bedroom dwelling / apartment: not less than 8m<sup>3</sup></li> <li>(c) 2 bedroom dwelling / apartment: not less than 10m<sup>3</sup></li> <li>(d) 3+ bedroom dwelling / apartment: not less than 12m<sup>3</sup>.</li> </ol>
Earthworks	
PO 19.1 Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.	DTS/DPF 19.1 The development does not involve: <ol style="list-style-type: none"> <li>(a) excavation exceeding a vertical height of 1m or</li> <li>(b) filling exceeding a vertical height of 1m or</li> <li>(c) a total combined excavation and filling vertical height exceeding 2m.</li> </ol>
Service connections and infrastructure	
PO 20.1 Dwellings are provided with appropriate service connections and infrastructure.	DTS/DPF 20.1 The site and building: <ol style="list-style-type: none"> <li>(a) have the ability to be connected to a permanent potable water supply</li> <li>(b) have the ability to be connected to a sewerage system, or a wastewater system approved under the <i>South Australian Public Health Act 2011</i></li> <li>(c) have the ability to be connected to electricity supply</li> <li>(d) have the ability to be connected to an adequate water supply (and pressure) for fire-fighting purposes</li> <li>(e) would not be contrary to the Regulations prescribed for the purposes of Section 86 of the <i>Electricity Act 1996</i>.</li> </ol>
Site contamination	
PO 21.1	DTS/DPF 21.1

<p>Land that is suitable for sensitive land uses to provide a safe environment.</p>	<p>Development satisfies (a), (b), (c) or (d):</p> <ul style="list-style-type: none"> <li>(a) does not involve a change in the use of land</li> <li>(b) involves a change in the use of land that does not constitute a change to a <u>more sensitive use</u></li> <li>(c) involves a change in the use of land to a <u>more sensitive use</u> on land at which <u>site contamination</u> does not exist (as demonstrated in a <u>site contamination declaration form</u>)</li> <li>(d) involves a change in the use of land to a <u>more sensitive use</u> on land at which <u>site contamination</u> exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following:             <ul style="list-style-type: none"> <li>(i) a <u>site contamination audit report</u> has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that                 <ul style="list-style-type: none"> <li>A. <u>site contamination</u> does not exist (or no longer exists) at the land or</li> <li>B. the land is suitable for the proposed use or range of uses (without the need for any further <u>remediation</u>) or</li> <li>C. where <u>remediation</u> is, or remains, necessary for the proposed use (or range of uses), <u>remediation work</u> has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development)</li> </ul> </li> <li>and</li> <li>(ii) no other <u>class 1 activity</u> or <u>class 2 activity</u> has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a <u>site contamination declaration form</u>).</li> </ul> </li> </ul>
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**Infrastructure and Renewable Energy Facilities**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Efficient provision of infrastructure networks and services, renewable energy facilities and ancillary development in a manner that minimises hazard, is environmentally and culturally sensitive and manages adverse visual impacts on natural and rural landscapes and residential amenity.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Development is located and designed to minimise hazard or nuisance to adjacent development and land uses.	DTS/DPF 1.1 None are applicable.
Visual Amenity	

<p>PO 2.1</p> <p>The visual impact of above-ground infrastructure networks and services (excluding high voltage transmission lines), renewable energy facilities (excluding wind farms), energy storage facilities and ancillary development is minimised from townships, scenic routes and public roads by:</p> <ul style="list-style-type: none"> <li>(a) utilising features of the natural landscape to obscure views where practicable</li> <li>(b) siting development below ridgelines where practicable</li> <li>(c) avoiding visually sensitive and significant landscapes</li> <li>(d) using materials and finishes with low-reflectivity and colours that complement the surroundings</li> <li>(e) using existing vegetation to screen buildings</li> <li>(f) incorporating landscaping or landscaped mounding around the perimeter of a site and between adjacent allotments accommodating or zoned to primarily accommodate sensitive receivers.</li> </ul>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>PO 2.2</p> <p>Pumping stations, battery storage facilities, maintenance sheds and other ancillary structures incorporate vegetation buffers to reduce adverse visual impacts on adjacent land.</p>	<p>DTS/DPF 2.2</p> <p>None are applicable.</p>
<p>PO 2.3</p> <p>Surfaces exposed by earthworks associated with the installation of storage facilities, pipework, penstock, substations and other ancillary plant are reinstated and revegetated to reduce adverse visual impacts on adjacent land.</p>	<p>DTS/DPF 2.3</p> <p>None are applicable.</p>
Rehabilitation	
<p>PO 3.1</p> <p>Progressive rehabilitation (incorporating revegetation) of disturbed areas, ahead of or upon decommissioning of areas used for renewable energy facilities and transmission corridors.</p>	<p>DTS/DPF 3.1</p> <p>None are applicable.</p>
Hazard Management	
<p>PO 4.1</p> <p>Infrastructure and renewable energy facilities and ancillary development located and operated to not adversely impact maritime or air transport safety, including the operation of ports, airfields and landing strips.</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>
<p>PO 4.2</p> <p>Facilities for energy generation, power storage and transmission are separated as far as practicable from dwellings, tourist accommodation and frequently visited public places (such as viewing platforms / lookouts) to reduce risks to public safety from fire or equipment malfunction.</p>	<p>DTS/DPF 4.2</p> <p>None are applicable.</p>
<p>PO 4.3</p> <p>Bushfire hazard risk is minimised for renewable energy facilities by providing appropriate access tracks, safety equipment and water tanks and establishing cleared areas around substations, battery storage and operations compounds.</p>	<p>DTS/DPF 4.3</p> <p>None are applicable.</p>
Electricity Infrastructure and Battery Storage Facilities	
<p>PO 5.1</p> <p>Electricity infrastructure is located to minimise visual impacts through techniques including:</p> <ul style="list-style-type: none"> <li>(a) siting utilities and services: <ul style="list-style-type: none"> <li>(i) on areas already cleared of native vegetation</li> <li>(ii) where there is minimal interference or disturbance to existing native vegetation or biodiversity</li> </ul> </li> <li>(b) grouping utility buildings and structures with non-residential development, where practicable.</li> </ul>	<p>DTS/DPF 5.1</p> <p>None are applicable.</p>

<p>PO 5.2</p> <p>Electricity supply (excluding transmission lines) serving new development in urban areas and townships installed underground, excluding lines having a capacity exceeding or equal to 33kV.</p>	<p>DTS/DPF 5.2</p> <p>None are applicable.</p>
<p>PO 5.3</p> <p>Battery storage facilities are co-located with substation infrastructure where practicable to minimise the development footprint and reduce environmental impacts.</p>	<p>DTS/DPF 5.3</p> <p>None are applicable.</p>
Telecommunication Facilities	
<p>PO 6.1</p> <p>The proliferation of telecommunications facilities in the form of towers/monopoles in any one locality is managed, where technically feasible, by co-locating a facility with other communications facilities to mitigate impacts from clutter on visual amenity.</p>	<p>DTS/DPF 6.1</p> <p>None are applicable.</p>
<p>PO 6.2</p> <p>Telecommunications antennae are located as close as practicable to support structures to manage overall bulk and mitigate impacts on visual amenity.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
<p>PO 6.3</p> <p>Telecommunications facilities, particularly towers/monopoles, are located and sized to mitigate visual impacts by the following methods:</p> <ul style="list-style-type: none"> <li>(a) where technically feasible, incorporating the facility within an existing structure that may serve another purpose</li> <li>or all of the following:</li> <li>(b) using existing buildings and landscape features to obscure or interrupt views of a facility from nearby public roads, residential areas and places of high public amenity to the extent practical without unduly hindering the effective provision of telecommunications services</li> <li>(c) using materials and finishes that complement the environment</li> <li>(d) screening using landscaping and vegetation, particularly for equipment shelters and huts.</li> </ul>	<p>DTS/DPF 6.3</p> <p>None are applicable.</p>
Renewable Energy Facilities	
<p>PO 7.1</p> <p>Renewable energy facilities are located as close as practicable to existing transmission infrastructure to facilitate connections and minimise environmental impacts as a result of extending transmission infrastructure.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
Renewable Energy Facilities (Wind Farm)	
<p>PO 8.1</p> <p>Visual impact of wind turbine generators on the amenity of residential and tourist development is reduced through appropriate separation.</p>	<p>DTS/DPF 8.1</p> <p>Wind turbine generators are:</p> <ul style="list-style-type: none"> <li>(a) set back at least 2000m from the base of a turbine to any of the following zones: <ul style="list-style-type: none"> <li>(i) Rural Settlement Zone</li> <li>(ii) Township Zone</li> <li>(iii) Rural Living Zone</li> <li>(iv) Rural Neighbourhood Zone</li> </ul> </li> <li>with an additional 10m setback per additional metre over 150m overall turbine height (measured from the base of the turbine).</li> <li>(b) set back at least 1500m from the base of the turbine to non-associated (non-stakeholder) dwellings and tourist accommodation</li> </ul>
<p>PO 8.2</p> <p>The visual impact of wind turbine generators on natural landscapes is managed by:</p>	<p>DTS/DPF 8.2</p> <p>None are applicable.</p>



<ul style="list-style-type: none"> <li>(a) designing wind turbine generators to be uniform in colour, size and shape</li> <li>(b) coordinating blade rotation and direction</li> <li>(c) mounting wind turbine generators on tubular towers as opposed to lattice towers.</li> </ul>																																				
<p>PO 8.3</p> <p>Wind turbine generators and ancillary development minimise potential for bird and bat strike.</p>	<p>DTS/DPF 8.3</p> <p>None are applicable.</p>																																			
<p>PO 8.4</p> <p>Wind turbine generators incorporate recognition systems or physical markers to minimise the risk to aircraft operations.</p>	<p>DTS/DPF 8.4</p> <p>No Commonwealth air safety (CASA / ASA) or Defence requirement is applicable.</p>																																			
<p>PO 8.5</p> <p>Meteorological masts and guidewires are identifiable to aircraft through the use of colour bands, marker balls, high visibility sleeves or flashing strobes.</p>	<p>DTS/DPF 8.5</p> <p>None are applicable.</p>																																			
<p>Renewable Energy Facilities (Solar Power)</p>																																				
<p>PO 9.1</p> <p>Ground mounted solar power facilities generating 5MW or more are not located on land requiring the clearance of areas of intact native vegetation or on land of high environmental, scenic or cultural value.</p>	<p>DTS/DPF 9.1</p> <p>None are applicable.</p>																																			
<p>PO 9.2</p> <p>Ground mounted solar power facilities allow for movement of wildlife by:</p> <ul style="list-style-type: none"> <li>(a) incorporating wildlife corridors and habitat refuges</li> <li>(b) avoiding the use of extensive security or perimeter fencing or incorporating fencing that enables the passage of small animals without unreasonably compromising the security of the facility.</li> </ul>	<p>DTS/DPF 9.2</p> <p>None are applicable.</p>																																			
<p>PO 9.3</p> <p>Amenity impacts of solar power facilities are minimised through separation from conservation areas and sensitive receivers in other ownership.</p>	<p>DTS/DPF 9.3</p> <p>Ground mounted solar power facilities are set back from land boundaries, conservation areas and relevant zones in accordance with the following criteria:</p> <table border="1"> <thead> <tr> <th>Generation Capacity</th> <th>Approximate size of array</th> <th>Setback from adjoining land boundary</th> <th>Setback from conservation areas</th> <th>Setback from Township, Rural Settlement, Rural Neighbourhood and Rural Living Zones<sup>1</sup></th> </tr> </thead> <tbody> <tr> <td>50MW&gt;</td> <td>80ha+</td> <td>30m</td> <td>500m</td> <td>2km</td> </tr> <tr> <td>10MW&lt;50MW</td> <td>16ha&lt;-80ha</td> <td>25m</td> <td>500m</td> <td>1.5km</td> </tr> <tr> <td>5MW&lt;10MW</td> <td>8ha to &lt;16ha</td> <td>20m</td> <td>500m</td> <td>1km</td> </tr> <tr> <td>1MW&lt;5MW</td> <td>1.6ha to &lt;8ha</td> <td>15m</td> <td>500m</td> <td>500m</td> </tr> <tr> <td>100kW&lt;1MW</td> <td>0.5ha&lt;1.6ha</td> <td>10m</td> <td>500m</td> <td>100m</td> </tr> <tr> <td>&lt;100kW</td> <td>&lt;0.5ha</td> <td>5m</td> <td>500m</td> <td>25m</td> </tr> </tbody> </table> <p>Notes:</p> <p>1. Does not apply when the site of the proposed ground mounted solar power facility is located within one of these zones.</p>	Generation Capacity	Approximate size of array	Setback from adjoining land boundary	Setback from conservation areas	Setback from Township, Rural Settlement, Rural Neighbourhood and Rural Living Zones <sup>1</sup>	50MW>	80ha+	30m	500m	2km	10MW<50MW	16ha<-80ha	25m	500m	1.5km	5MW<10MW	8ha to <16ha	20m	500m	1km	1MW<5MW	1.6ha to <8ha	15m	500m	500m	100kW<1MW	0.5ha<1.6ha	10m	500m	100m	<100kW	<0.5ha	5m	500m	25m
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PO 9.4	DTS/DPF 9.4
Ground mounted solar power facilities incorporate landscaping within setbacks from adjacent road frontages and boundaries of adjacent allotments accommodating non-host dwellings, where balanced with infrastructure access and bushfire safety considerations.	None are applicable.
Hydropower / Pumped Hydropower Facilities	
PO 10.1	DTS/DPF 10.1
Hydropower / pumped hydropower facility storage is designed and operated to minimise the risk of storage dam failure.	None are applicable.
PO 10.2	DTS/DPF 10.2
Hydropower / pumped hydropower facility storage is designed and operated to minimise water loss through increased evaporation or system leakage, with the incorporation of appropriate liners, dam covers, operational measures or detection systems.	None are applicable.
PO 10.3	DTS/DPF 10.3
Hydropower / pumped hydropower facilities on existing or former mine sites minimise environmental impacts from site contamination, including from mine operations or water sources subject to such processes, now or in the future.	None are applicable.
Water Supply	
PO 11.1	DTS/DPF 11.1
Development is connected to an appropriate water supply to meet the ongoing requirements of the intended use.	Development is connected, or will be connected, to a reticulated water scheme or mains water supply with the capacity to meet the on-going requirements of the development.
PO 11.2	DTS/DPF 11.2
Dwellings are connected to a reticulated water scheme or mains water supply with the capacity to meet the requirements of the intended use. Where this is not available an appropriate rainwater tank or storage system for domestic use is provided.	A dwelling is connected, or will be connected, to a reticulated water scheme or mains water supply with the capacity to meet the requirements of the development. Where this is not available it is serviced by a rainwater tank or tanks capable of holding at least 50,000 litres of water which is: <ul style="list-style-type: none"> <li>(a) exclusively for domestic use</li> <li>(b) connected to the roof drainage system of the dwelling.</li> </ul>
Wastewater Services	
PO 12.1	DTS/DPF 12.1
Development is connected to an approved common wastewater disposal service with the capacity to meet the requirements of the intended use. Where this is not available an appropriate on-site service is provided to meet the ongoing requirements of the intended use in accordance with the following: <ul style="list-style-type: none"> <li>(a) it is wholly located and contained within the allotment of the development it will service</li> <li>(b) in areas where there is a high risk of contamination of surface, ground, or marine water resources from on-site disposal of liquid wastes, disposal systems are included to minimise the risk of pollution to those water resources</li> <li>(c) septic tank effluent drainage fields and other wastewater disposal areas are located away from watercourses and flood prone, sloping, saline or poorly drained land to minimise environmental harm.</li> </ul>	Development is connected, or will be connected, to an approved common wastewater disposal service with the capacity to meet the requirements of the development. Where this is not available it is instead capable of being serviced by an on-site waste water treatment system in accordance with the following: <ul style="list-style-type: none"> <li>(a) the system is wholly located and contained within the allotment of development it will service; and</li> <li>(b) the system will comply with the requirements of the South Australian Public Health Act 2011.</li> </ul>
PO 12.2	DTS/DPF 12.2
Effluent drainage fields and other wastewater disposal areas are maintained to ensure the effective operation of waste systems and minimise risks to human health and the environment.	Development is not built on, or encroaches within, an area that is, or will be, required for a sewerage system or waste control system.
Temporary Facilities	
PO 13.1	DTS/DPF 13.1
In rural and remote locations, development that is likely to generate significant waste material during construction, including packaging waste, makes	A waste collection and disposal service is used to dispose of the volume of waste at the rate it is generated.

provision for a temporary on-site waste storage enclosure to minimise the incidence of wind-blown litter.	
PO 13.2 Temporary facilities to support the establishment of renewable energy facilities (including borrow pits, concrete batching plants, laydown, storage, access roads and worker amenity areas) are sited and operated to minimise environmental impact.	DTS/DPF 13.2 None are applicable.

## Intensive Animal Husbandry and Dairies

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development of intensive animal husbandry and dairies in locations that are protected from encroachment by sensitive receivers and in a manner that minimises their adverse effects on amenity and the environment.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting and Design	
PO 1.1 Intensive animal husbandry, dairies and associated activities are sited, designed, constructed and managed to not unreasonably impact on the environment or amenity of the locality.	DTS/DPF 1.1 None are applicable.
PO 1.2 Intensive animal husbandry, dairies and associated activities are sited, designed, constructed and managed to prevent the potential transmission of disease to other operations where animals are kept.	DTS/DPF 1.2 None are applicable.
PO 1.3 Intensive animal husbandry and associated activities such as wastewater lagoons and liquid/solid waste disposal areas are sited, designed, constructed and managed to not unreasonably impact on sensitive receivers in other ownership in terms of noise and air emissions.	DTS/DPF 1.3 None are applicable.
PO 1.4 Dairies and associated activities such as wastewater lagoons and liquid/solid waste disposal areas are sited, designed, constructed and managed to not unreasonably impact on sensitive receivers in other ownership in terms of noise and air emissions.	DTS/DPF 1.4 Dairies, associated wastewater lagoon(s) and liquid/solid waste storage and disposal facilities are located 500m or more from the nearest sensitive receiver in other ownership.
PO 1.5 Lagoons for the storage or treatment of milking shed effluent is adequately separated from roads to minimise impacts from odour on the general public.	DTS/DPF 1.5 Lagoons for the storage or treatment of milking shed effluent are set back 20m or more from public roads.
Waste	

<p>PO 2.1</p> <p>Storage of manure, used litter and other wastes (other than waste water lagoons) is sited, designed, constructed and managed to:</p> <ul style="list-style-type: none"> <li>(a) avoid attracting and harbouring vermin</li> <li>(b) avoid polluting water resources</li> <li>(c) be located outside 1% AEP flood event areas.</li> </ul>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
<p>Soil and Water Protection</p>	
<p>PO 3.1</p> <p>To avoid environmental harm and adverse effects on water resources, intensive animal husbandry operations are appropriately set back from:</p> <ul style="list-style-type: none"> <li>(a) public water supply reservoirs</li> <li>(b) major watercourses (third order or higher stream)</li> <li>(c) any other watercourse, bore or well used for domestic or stock water supplies.</li> </ul>	<p>DTS/DPF 3.1</p> <p>Intensive animal husbandry operations are set back:</p> <ul style="list-style-type: none"> <li>(a) 800m or more from a public water supply reservoir</li> <li>(b) 200m or more from a major watercourse (third order or higher stream)</li> <li>(c) 100m or more from any other watercourse, bore or well used for domestic or stock water supplies.</li> </ul>
<p>PO 3.2</p> <p>Intensive animal husbandry operations and dairies incorporate appropriately designed effluent and run-off facilities that:</p> <ul style="list-style-type: none"> <li>(a) have sufficient capacity to hold effluent and runoff from the operations on site</li> <li>(b) ensure effluent does not infiltrate and pollute groundwater, soil or other water resources.</li> </ul>	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>

**Interface between Land Uses**

**Assessment Provisions (AP)**

Desired Outcome (DO)

<p><b>Desired Outcome</b></p>	
<p>DO 1</p>	<p>Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.</p>

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<p><b>Performance Outcome</b></p>	<p><b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b></p>
<p>General Land Use Compatibility</p>	
<p>PO 1.1</p> <p>Sensitive receivers are designed and sited to protect residents and occupants from adverse impacts generated by lawfully existing land uses (or lawfully approved land uses) and land uses desired in the zone.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Development adjacent to a site containing a sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers is designed to minimise adverse impacts.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
<p>Hours of Operation</p>	

<p>PO 2.1</p> <p>Non-residential development does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:</p> <ul style="list-style-type: none"> <li>(a) the nature of the development</li> <li>(b) measures to mitigate off-site impacts</li> <li>(c) the extent to which the development is desired in the zone</li> <li>(d) measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of that land.</li> </ul>	<p>DTS/DPF 2.1</p> <p>Development operating within the following hours:</p> <table border="1"> <thead> <tr> <th>Class of Development</th> <th>Hours of operation</th> </tr> </thead> <tbody> <tr> <td>Consulting room</td> <td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday</td> </tr> <tr> <td>Office</td> <td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday</td> </tr> <tr> <td>Shop, other than any one or combination of the following: <ul style="list-style-type: none"> <li>(a) restaurant</li> <li>(b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone</li> </ul></td> <td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday</td> </tr> </tbody> </table>	Class of Development	Hours of operation	Consulting room	7am to 9pm, Monday to Friday 8am to 5pm, Saturday	Office	7am to 9pm, Monday to Friday 8am to 5pm, Saturday	Shop, other than any one or combination of the following: <ul style="list-style-type: none"> <li>(a) restaurant</li> <li>(b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone</li> </ul>	7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday
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Overshadowing									
<p>PO 3.1</p> <p>Overshadowing of habitable room windows of adjacent residential land uses in:</p> <ul style="list-style-type: none"> <li>a. a neighbourhood-type zone is minimised to maintain access to direct winter sunlight</li> <li>b. other zones is managed to enable access to direct winter sunlight.</li> </ul>	<p>DTS/DPF 3.1</p> <p>North-facing windows of habitable rooms of adjacent residential land uses in a neighbourhood-type zone receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.</p>								
<p>PO 3.2</p> <p>Overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in:</p> <ul style="list-style-type: none"> <li>a. a neighbourhood type zone is minimised to maintain access to direct winter sunlight</li> <li>b. other zones is managed to enable access to direct winter sunlight.</li> </ul>	<p>DTS/DPF 3.2</p> <p>Development maintains 2 hours of direct sunlight between 9.00 am and 3.00 pm on 21 June to adjacent residential land uses in a neighbourhood-type zone in accordance with the following:</p> <ul style="list-style-type: none"> <li>a. for ground level private open space, the smaller of the following:             <ul style="list-style-type: none"> <li>i. half the existing ground level open space</li> <li>or</li> <li>ii. 35m<sup>2</sup> of the existing ground level open space (with at least one of the area's dimensions measuring 2.5m)</li> </ul> </li> <li>b. for ground level communal open space, at least half of the existing ground level open space.</li> </ul>								
<p>PO 3.3</p> <p>Development does not unduly reduce the generating capacity of adjacent rooftop solar energy facilities taking into account:</p> <ul style="list-style-type: none"> <li>(a) the form of development contemplated in the zone</li> <li>(b) the orientation of the solar energy facilities</li> <li>(c) the extent to which the solar energy facilities are already overshadowed.</li> </ul>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>								
<p>PO 3.4</p> <p>Development that incorporates moving parts, including windmills and wind farms, are located and operated to not cause unreasonable nuisance to nearby dwellings and tourist accommodation caused by shadow flicker.</p>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>								
Activities Generating Noise or Vibration									
<p>PO 4.1</p>	<p>DTS/DPF 4.1</p>								

Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).	Noise that affects sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria.					
<p>PO 4.2</p> <p>Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:</p> <ul style="list-style-type: none"> <li>(a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</li> <li>(b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</li> <li>(c) housing plant and equipment within an enclosed structure or acoustic enclosure</li> <li>(d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.</li> </ul>	<p>DTS/DPF 4.2</p> <p>None are applicable.</p>					
<p>PO 4.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa are positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.3</p> <p>The pump and/or filtration system ancillary to a dwelling erected on the same site is:</p> <ul style="list-style-type: none"> <li>(a) enclosed in a solid acoustic structure located at least 5m from the nearest habitable room located on an adjoining allotment or</li> <li>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</li> </ul>					
<p>PO 4.4</p> <p>External noise into bedrooms is minimised by separating or shielding these rooms from service equipment areas and fixed noise sources located on the same or an adjoining allotment.</p>	<p>DTS/DPF 4.4</p> <p>Adjacent land is used for residential purposes.</p>					
<p>PO 4.5</p> <p>Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.5</p> <p>None are applicable.</p>					
<p>PO 4.6</p> <p>Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.</p>	<p>DTS/DPF 4.6</p> <p>Development incorporating music includes noise attenuation measures that will achieve the following noise levels:</p> <table border="1"> <thead> <tr> <th>Assessment location</th> <th>Music noise level</th> </tr> </thead> <tbody> <tr> <td>Externally at the nearest existing or envisaged noise sensitive location</td> <td>Less than 8dB above the level of background noise (L<sub>90,15min</sub>) in any octave band of the sound spectrum (LOCT<sub>10,15</sub> &lt; LOCT<sub>90,15</sub> + 8dB)</td> </tr> </tbody> </table>		Assessment location	Music noise level	Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L <sub>90,15min</sub> ) in any octave band of the sound spectrum (LOCT <sub>10,15</sub> < LOCT <sub>90,15</sub> + 8dB)
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Air Quality						
<p>PO 5.1</p> <p>Development with the potential to emit harmful or nuisance-generating air pollution incorporates air pollution control measures to prevent harm to human health or unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) within the locality and zones primarily intended to accommodate sensitive receivers.</p>	<p>DTS/DPF 5.1</p> <p>None are applicable.</p>					
<p>PO 5.2</p> <p>Development that includes chimneys or exhaust flues (including cafes,</p>	<p>DTS/DPF 5.2</p> <p>None are applicable.</p>					

<p>restaurants and fast food outlets) is designed to minimise nuisance or adverse health impacts to sensitive receivers (or lawfully approved sensitive receivers) by:</p> <ul style="list-style-type: none"> <li>(a) incorporating appropriate treatment technology before exhaust emissions are released</li> <li>(b) locating and designing chimneys or exhaust flues to maximise the dispersion of exhaust emissions, taking into account the location of sensitive receivers.</li> </ul>	
Light Spill	
<p>PO 6.1</p> <p>External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 6.1</p> <p>None are applicable.</p>
<p>PO 6.2</p> <p>External lighting is not hazardous to motorists and cyclists.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
Solar Reflectivity / Glare	
<p>PO 7.1</p> <p>Development is designed and comprised of materials and finishes that do not unreasonably cause a distraction to adjacent road users and pedestrian areas or unreasonably cause heat loading and micro-climatic impacts on adjacent buildings and land uses as a result of reflective solar glare.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
Electrical Interference	
<p>PO 8.1</p> <p>Development in rural and remote areas does not unreasonably diminish or result in the loss of existing communication services due to electrical interference.</p>	<p>DTS/DPF 8.1</p> <p>The building or structure:</p> <ul style="list-style-type: none"> <li>(a) is no greater than 10m in height, measured from existing ground level or</li> <li>(b) is not within a line of sight between a fixed transmitter and fixed receiver (antenna) other than where an alternative service is available via a different fixed transmitter or cable.</li> </ul>
Interface with Rural Activities	
<p>PO 9.1</p> <p>Sensitive receivers are located and designed to mitigate impacts from lawfully existing horticultural and farming activities (or lawfully approved horticultural and farming activities), including spray drift and noise and do not prejudice the continued operation of these activities.</p>	<p>DTS/DPF 9.1</p> <p>None are applicable.</p>
<p>PO 9.2</p> <p>Sensitive receivers are located and designed to mitigate potential impacts from lawfully existing intensive animal husbandry activities and do not prejudice the continued operation of these activities.</p>	<p>DTS/DPF 9.2</p> <p>None are applicable.</p>
<p>PO 9.3</p> <p>Sensitive receivers are located and designed to mitigate potential impacts from lawfully existing land-based aquaculture activities and do not prejudice the continued operation of these activities.</p>	<p>DTS/DPF 9.3</p> <p>Sensitive receivers are located at least 200m from the boundary of a site used for land-based aquaculture and associated components in other ownership.</p>
<p>PO 9.4</p> <p>Sensitive receivers are located and designed to mitigate potential impacts from lawfully existing dairies including associated wastewater lagoons and liquid/solid waste storage and disposal facilities and do not prejudice the continued operation of these activities.</p>	<p>DTS/DPF 9.4</p> <p>Sensitive receivers are sited at least 500m from the boundary of a site used for a dairy and associated wastewater lagoon(s) and liquid/solid waste storage and disposal facilities in other ownership.</p>
<p>PO 9.5</p> <p>Sensitive receivers are located and designed to mitigate the potential impacts from lawfully existing facilities used for the handling, transportation and storage of bulk commodities (recognising the potential for extended hours of operation) and do not prejudice the continued operation of these activities.</p>	<p>DTS/DPF 9.5</p> <p>Sensitive receivers are located away from the boundary of a site used for the handling, transportation and/or storage of bulk commodities in other ownership in accordance with the following:</p>

	<ul style="list-style-type: none"> <li>(a) 300m or more, where it involves the handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals to or from any commercial storage facility</li> <li>(b) 300m or more, where it involves the handling of agricultural crop products, rock, ores, minerals, petroleum products or chemicals at a wharf or wharf side facility (including sea-port grain terminals) where the handling of these materials into or from vessels does not exceed 100 tonnes per day</li> <li>(c) 500m or more, where it involves the storage of bulk petroleum in individual containers with a capacity up to 200 litres and a total on-site storage capacity not exceeding 1000 cubic metres</li> <li>(d) 500m or more, where it involves the handling of coal with a capacity up to 1 tonne per day or a storage capacity up to 50 tonnes</li> <li>(e) 1000m or more, where it involves the handling of coal with a capacity exceeding 1 tonne per day but not exceeding 100 tonnes per day or a storage capacity exceeding 50 tonnes but not exceeding 5000 tonnes.</li> </ul>
PO 9.6 Setbacks and vegetation plantings along allotment boundaries should be incorporated to mitigate the potential impacts of spray drift and other impacts associated with agricultural and horticultural activities.	DTS/DPF 9.6 None are applicable.
PO 9.7 Urban development does not prejudice existing agricultural and horticultural activities through appropriate separation and design techniques.	DTS/DPF 9.7 None are applicable.
Interface with Mines and Quarries (Rural and Remote Areas)	
PO 10.1 Sensitive receivers are separated from existing mines to minimise the adverse impacts from noise, dust and vibration.	DTS/DPF 10.1 Sensitive receivers are located no closer than 500m from the boundary of a Mining Production Tenement under the <i>Mining Act 1971</i> .

**Land Division**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	<p>Land division:</p> <ul style="list-style-type: none"> <li>(a) creates allotments with the appropriate dimensions and shape for their intended use</li> <li>(b) allows efficient provision of new infrastructure and the optimum use of underutilised infrastructure</li> <li>(c) integrates and allocates adequate and suitable land for the preservation of site features of value, including significant vegetation, watercourses, water bodies and other environmental features</li> <li>(d) facilitates solar access through allotment orientation</li> <li>(e) creates a compact urban form that supports active travel, walkability and the use of public transport</li> <li>(f) avoids areas of high natural hazard risk.</li> </ul>

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All land division	
Allotment configuration	



PO 1.1 Land division creates allotments suitable for their intended use.	DTS/DPF 1.1 Division of land satisfies (a) or (b):  (a) reflects the site boundaries illustrated and approved in an operative or existing development authorisation for residential development under the <i>Development Act 1993</i> or <i>Planning, Development and Infrastructure Act 2016</i> where the allotments are used or are proposed to be used solely for residential purposes  (b) is proposed as part of a combined land division application with deemed-to-satisfy dwellings on the proposed allotments.
PO 1.2 Land division considers the physical characteristics of the land, preservation of environmental and cultural features of value and the prevailing context of the locality.	DTS/DPF 1.2 None are applicable.
<b>Design and Layout</b>	
PO 2.1 Land division results in a pattern of development that minimises the likelihood of future earthworks and retaining walls.	DTS/DPF 2.1 None are applicable.
PO 2.2 Land division enables the appropriate management of interface impacts between potentially conflicting land uses and/or zones.	DTS/DPF 2.2 None are applicable.
PO 2.3 Land division maximises the number of allotments that face public open space and public streets.	DTS/DPF 2.3 None are applicable.
PO 2.4 Land division is integrated with site features, adjacent land uses, the existing transport network and available infrastructure.	DTS/DPF 2.4 None are applicable.
PO 2.5 Development and infrastructure is provided and staged in a manner that supports an orderly and economic provision of land, infrastructure and services.	DTS/DPF 2.5 None are applicable.
PO 2.6 Land division results in watercourses being retained within open space and development taking place on land not subject to flooding.	DTS/DPF 2.6 None are applicable.
PO 2.7 Land division results in legible street patterns connected to the surrounding street network.	DTS/DPF 2.7 None are applicable.
PO 2.8 Land division is designed to preserve existing vegetation of value including native vegetation and regulated and significant trees.	DTS/DPF 2.8 None are applicable.
<b>Roads and Access</b>	
PO 3.1 Land division provides allotments with access to an all-weather public road.	DTS/DPF 3.1 None are applicable.
PO 3.2 Street patterns and intersections are designed to enable the safe and efficient movement of pedestrian, cycle and vehicular traffic.	DTS/DPF 3.2 None are applicable.
PO 3.3 Land division does not impede access to publicly owned open space and/or recreation facilities.	DTS/DPF 3.3 None are applicable.

PO 3.4	DTS/DPF 3.4
Road reserves provide for safe and convenient movement and parking of projected volumes of vehicles and allow for the efficient movement of service and emergency vehicles.	None are applicable.
PO 3.5	DTS/DPF 3.5
Road reserves are designed to accommodate pedestrian and cycling infrastructure, street tree planting, landscaping and street furniture.	None are applicable.
PO 3.6	DTS/DPF 3.6
Road reserves accommodate stormwater drainage and public utilities.	None are applicable.
PO 3.7	DTS/DPF 3.7
Road reserves provide unobstructed vehicular access and egress to and from individual allotments and sites.	None are applicable.
PO 3.8	DTS/DPF 3.8
Street patterns and intersections are designed to enable the safe and efficient movement of pedestrian, cycle and vehicular traffic.	None are applicable.
PO 3.9	DTS/DPF 3.9
Roads, open space and thoroughfares provide safe and convenient linkages to the surrounding open space and transport network.	None are applicable.
PO 3.10	DTS/DPF 3.10
Public streets are designed to enable tree planting to provide shade and enhance the amenity of streetscapes.	None are applicable.
PO 3.11	DTS/DPF 3.11
Local streets are designed to create low-speed environments that are safe for cyclists and pedestrians.	None are applicable.
<b>Infrastructure</b>	
PO 4.1	DTS/DPF 4.1
Land division incorporates public utility services within road reserves or dedicated easements.	None are applicable.
PO 4.2	DTS/DPF 4.2
Waste water, sewage and other effluent is capable of being disposed of from each allotment without risk to public health or the environment.	Each allotment can be connected to: <ul style="list-style-type: none"> <li>(a) a waste water treatment plant that has the hydraulic volume and pollutant load treatment and disposal capacity for the maximum predicted wastewater volume generated by subsequent development of the proposed allotment</li> <li>or</li> <li>(b) a form of on-site waste water treatment and disposal that meets relevant public health and environmental standards.</li> </ul>
PO 4.3	DTS/DPF 4.3
Septic tank effluent drainage fields and other waste water disposal areas are maintained to ensure the effective operation of waste systems and minimise risks to human health and the environment.	Development is not built on, or encroaches within, an area that is or will be, required for a sewerage system or waste control system.
PO 4.4	DTS/DPF 4.4
Constructed wetland systems, including associated detention and retention basins, are sited and designed to ensure public health and safety is protected, including by minimising potential public health risks arising from the breeding of mosquitoes.	None are applicable.
PO 4.5	DTS/DPF 4.5
Constructed wetland systems, including associated detention and retention basins, are sited and designed to allow sediments to settle prior to discharge into watercourses or the marine environment.	None are applicable.

PO 4.6	DTS/DPF 4.6
Constructed wetland systems, including associated detention and retention basins, are sited and designed to function as a landscape feature.	None are applicable.
Minor Land Division (Under 20 Allotments)	
Open Space	
PO 5.1	DTS/DPF 5.1
Land division proposing an additional allotment under 1 hectare provides or supports the provision of open space.	None are applicable.
Solar Orientation	
PO 6.1	DTS/DPF 6.1
Land division for residential purposes facilitates solar access through allotment orientation.	None are applicable.
Water Sensitive Design	
PO 7.1	DTS/DPF 7.1
Land division creating a new road or common driveway includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	None are applicable.
PO 7.2	DTS/DPF 7.2
Land division designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	None are applicable.
Battle-Axe Development	
PO 8.1	DTS/DPF 8.1
Battle-axe development appropriately responds to the existing neighbourhood context.	Allotments are not in the form of a battle-axe arrangement.
PO 8.2	DTS/DPF 8.2
Battle-axe development designed to allow safe and convenient movement.	The handle of a battle-axe development: <ul style="list-style-type: none"> <li>(a) has a minimum width of 4m</li> <li>or</li> <li>(b) where more than 3 allotments are proposed, a minimum width of 5.5m.</li> </ul>
PO 8.3	DTS/DPF 8.3
Battle-axe allotments and/or common land are of a suitable size and dimension to allow passenger vehicles to enter and exit and manoeuvre within the site in a safe and convenient manner.	Battle-axe development allows a B85 passenger vehicle to enter and exit parking spaces in no more than a three-point turn manoeuvre.
PO 8.4	DTS/DPF 8.4
Battle-axe or common driveways incorporate landscaping and permeability to improve appearance and assist in stormwater management.	Battle-axe or common driveways satisfy (a) and (b): <ul style="list-style-type: none"> <li>(a) are constructed of a minimum of 50% permeable or porous material</li> <li>(b) where the driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).</li> </ul>
Major Land Division (20+ Allotments)	
Open Space	
PO 9.1	DTS/DPF 9.1
Land division allocates or retains evenly distributed, high quality areas of open space to improve residential amenity and provide urban heat amelioration.	None are applicable.
PO 9.2	DTS/DPF 9.2
Land allocated for open space is suitable for its intended active and passive recreational use considering gradient and potential for inundation.	None are applicable.

PO 9.3 Land allocated for active recreation has dimensions capable of accommodating a range of active recreational activities.	DTS/DPF 9.3 None are applicable.
Water Sensitive Design	
PO 10.1 Land division creating 20 or more residential allotments includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 10.1 None are applicable.
PO 10.2 Land division creating 20 or more non-residential allotments includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.	DTS/DPF 10.2 None are applicable.
PO 10.3 Land division creating 20 or more allotments includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.	DTS/DPF 10.3 None are applicable.
Solar Orientation	
PO 11.1 Land division creating 20 or more allotments for residential purposes facilitates solar access through allotment orientation and allotment dimensions.	DTS/DPF 11.1 None are applicable.

**Marinas and On-Water Structures**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Marinas and on-water structures are located and designed to minimise the impairment of commercial, recreational and navigational activities and adverse impacts on the environment.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Navigation and Safety	
PO 1.1 Safe public access is provided or maintained to the waterfront, public infrastructure and recreation areas.	DTS/DPF 1.1 None are applicable.

PO 1.2 The operation of wharves is not impaired by marinas and on-water structures.	DTS/DPF 1.2 None are applicable.
PO 1.3 Navigation and access channels are not impaired by marinas and on-water structures.	DTS/DPF 1.3 None are applicable.
PO 1.4 Commercial shipping lanes are not impaired by marinas and on-water structures.	DTS/DPF 1.4 Marinas and on-water structures are set back 250m or more from commercial shipping lanes.
PO 1.5 Marinas and on-water structures are located to avoid interfering with the operation or function of a water supply pumping station.	DTS/DPF 1.5 On-water structures are set back:  (a) 3km or more from upstream water supply pumping station take-off points (b) 500m or more from downstream water supply pumping station take-off points.
PO 1.6 Maintenance of on-water infrastructure, including revetment walls, is not impaired by marinas and on-water structures.	DTS/DPF 1.6 None are applicable.
Environmental Protection	
PO 2.1 Development is sited and designed to facilitate water circulation and exchange.	DTS/DPF 2.1 None are applicable.

**Open Space and Recreation**

**Assessment Provisions (AP)**

Desired Outcome (DO)

<b>Desired Outcome</b>	
DO 1	Pleasant, functional and accessible open space and recreation facilities are provided at State, regional, district, neighbourhood and local levels for active and passive recreation, biodiversity, community health, urban cooling, tree canopy cover, visual amenity, gathering spaces, wildlife and waterway corridors, and a range of other functions and at a range of sizes that reflect the purpose of that open space.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
Land Use and Intensity	
PO 1.1 Recreation facilities are compatible with surrounding land uses and activities.	DTS/DPF 1.1 None are applicable.
PO 1.2 Open space areas include natural or landscaped areas using locally indigenous plant species and large trees.	DTS/DPF 1.2 None are applicable.

Design and Siting	
PO 2.1 Open space and recreation facilities address adjacent public roads to optimise pedestrian access and visibility.	DTS/DPF 2.1 None are applicable.
PO 2.2 Open space and recreation facilities incorporate park furniture, shaded areas and resting places.	DTS/DPF 2.2 None are applicable.
PO 2.3 Open space and recreation facilities link habitats, wildlife corridors and existing open spaces and recreation facilities.	DTS/DPF 2.3 None are applicable.
Pedestrians and Cyclists	
PO 3.1 Open space incorporates:  (a) pedestrian and cycle linkages to other open spaces, centres, schools and public transport nodes; (b) safe crossing points where pedestrian routes intersect the road network; (c) easily identified access points.	DTS/DPF 3.1 None are applicable.
Usability	
PO 4.1 Land allocated for open space is suitable for its intended active and passive recreational use taking into consideration its gradient and potential for inundation.	DTS/DPF 4.1 None are applicable.
Safety and Security	
PO 5.1 Open space is overlooked by housing, commercial or other development to provide casual surveillance where possible.	DTS/DPF 5.1 None are applicable.
PO 5.2 Play equipment is located to maximise opportunities for passive surveillance.	DTS/DPF 5.2 None are applicable.
PO 5.3 Landscaping provided in open space and recreation facilities maximises opportunities for casual surveillance throughout the park.	DTS/DPF 5.3 None are applicable.
PO 5.4 Fenced parks and playgrounds have more than one entrance or exit to minimise potential entrapment.	DTS/DPF 5.4 None are applicable.
PO 5.5 Adequate lighting is provided around toilets, telephones, seating, litter bins, bicycle storage, car parks and other such facilities.	DTS/DPF 5.5 None are applicable.
PO 5.6 Pedestrian and bicycle movement after dark is focused along clearly defined, adequately lit routes with observable entries and exits.	DTS/DPF 5.6 None are applicable.
Signage	
PO 6.1 Signage is provided at entrances to and within the open space and recreation facilities to provide clear orientation to major points of interest such as the location of public toilets, telephones, safe routes, park activities and the like.	DTS/DPF 6.1 None are applicable.
Buildings and Structures	
PO 7.1	DTS/DPF 7.1

Buildings and car parking areas in open space areas are designed, located and of a scale to be unobtrusive.	None are applicable.
PO 7.2 Buildings and structures in open space areas are clustered where practical to ensure that the majority of the site remains open.	DTS/DPF 7.2 None are applicable.
PO 7.3 Development in open space is constructed to minimise the extent of impervious surfaces.	DTS/DPF 7.3 None are applicable.
PO 7.4 Development that abuts or includes a coastal reserve or Crown land used for scenic, conservation or recreational purposes is located and designed to have regard to the purpose, management and amenity of the reserve.	DTS/DPF 7.4 None are applicable.
Landscaping	
PO 8.1 Open space and recreation facilities provide for the planting and retention of large trees and vegetation.	DTS/DPF 8.1 None are applicable.
PO 8.2 Landscaping in open space and recreation facilities provides shade and windbreaks:  (a) along cyclist and pedestrian routes; (b) around picnic and barbecue areas; (c) in car parking areas.	DTS/DPF 8.2 None are applicable.
PO 8.3 Landscaping in open space facilitates habitat for local fauna and facilitates biodiversity.	DTS/DPF 8.3 None are applicable.
PO 8.4 Landscaping including trees and other vegetation passively watered with local rainfall run-off, where practicable.	DTS/DPF 8.4 None are applicable.

## Out of Activity Centre Development

### Assessment Provisions (AP)

Desired Outcome (DO)

### Desired Outcome

DO1	The role of Activity Centres in contributing to the form and pattern of development and enabling equitable and convenient access to a range of shopping, administrative, cultural, entertainment and other facilities in a single trip is maintained and reinforced.
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Performance Outcomes and Deemed to Satisfy / Designated Performance Outcome Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Non-residential development outside Activity Centres of a scale and type that does not diminish the role of Activity Centres:  (a) as primary locations for shopping, administrative, cultural, entertainment and community services (b) as a focus for regular social and business gatherings	DTS/DPF 1.1 None are applicable.

(c) in contributing to or maintaining a pattern of development that supports equitable community access to services and facilities.	
<p>PO 1.2</p> <p>Out-of-activity centre non-residential development complements Activity Centres through the provision of services and facilities:</p> <p>(a) that support the needs of local residents and workers, particularly in underserved locations</p> <p>(b) at the edge of Activities Centres where they cannot readily be accommodated within an existing Activity Centre to expand the range of services on offer and support the role of the Activity Centre.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>

## Resource Extraction

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Resource extraction activities are developed in a manner that minimises human and environmental impacts.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use and Intensity	
<p>PO 1.1</p> <p>Resource extraction activities minimise landscape damage outside of those areas unavoidably disturbed to access and exploit a resource and provide for the progressive reclamation and betterment of disturbed areas.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Resource extraction activities avoid damage to cultural sites or artefacts.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
Water Quality	
<p>PO 2.1</p> <p>Stormwater and/or wastewater from resource extraction activities is diverted into appropriately sized treatment and retention systems to enable reuse on site.</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>
Separation Treatments, Buffers and Landscaping	
<p>PO 3.1</p> <p>Resource extraction activities minimise adverse impacts upon sensitive receivers through incorporation of separation distances and/or mounding/vegetation.</p>	<p>DTS/DPF 3.1</p> <p>None are applicable.</p>
<p>PO 3.2</p> <p>Resource extraction activities are screened from view from adjacent land by</p>	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>



perimeter landscaping and/or mounding.	
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**Site Contamination**

**Assessment Provisions (AP)**

Desired Outcome (DO)

<b>Desired Outcome</b>	
DO 1	Ensure land is suitable for the proposed use in circumstances where it is, or may have been, subject to site contamination.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

<b>Performance Outcome</b>	<b>Deemed-to-Satisfy Criteria / Designated Performance Feature</b>
<p>PO 1.1</p> <p>Ensure land is suitable for use when land use changes to a more sensitive use.</p>	<p>DTS/DPF 1.1</p> <p>Development satisfies (a), (b), (c) or (d):</p> <ul style="list-style-type: none"> <li>(a) does not involve a change in the use of land</li> <li>(b) involves a change in the use of land that does not constitute a change to a more sensitive use</li> <li>(c) involves a change in the use of land to a more sensitive use on land at which site contamination is unlikely to exist (as demonstrated in a site contamination declaration form)</li> <li>(d) involves a change in the use of land to a more sensitive use on land at which site contamination exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following:                             <ul style="list-style-type: none"> <li>(i) a site contamination audit report has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that-                                     <ul style="list-style-type: none"> <li>A. site contamination does not exist (or no longer exists) at the land</li> <li>or</li> <li>B. the land is suitable for the proposed use or range of uses (without the need for any further remediation)</li> <li>or</li> <li>C. where remediation is, or remains, necessary for the proposed use (or range of uses), remediation work has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development)</li> </ul> </li> <li>and</li> <li>(ii) no other class 1 activity or class 2 activity has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a site contamination declaration form).</li> </ul> </li> </ul>

**Tourism Development**

**Assessment Provisions (AP)**

Desired Outcome (DO)

## Desired Outcome

DO 1	Tourism development is built in locations that cater to the needs of visitors and positively contributes to South Australia's visitor economy.
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Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Tourism development complements and contributes to local, natural, cultural or historical context where: <ul style="list-style-type: none"> <li>(a) it supports immersive natural experiences</li> <li>(b) it showcases South Australia's landscapes and produce</li> <li>(c) its events and functions are connected to local food, wine and nature.</li> </ul>	DTS/DPF 1.1 None are applicable.
PO 1.2 Tourism development comprising multiple accommodation units (including any facilities and activities for use by guests and visitors) is clustered to minimise environmental and contextual impact.	DTS/DPF 1.2 None are applicable.
Caravan and Tourist Parks	
PO 2.1 Potential conflicts between long-term residents and short-term tourists are minimised through suitable siting and design measures.	DTS/DPF 2.1 None are applicable.
PO 2.2 Occupants are provided privacy and amenity through landscaping and fencing.	DTS/DPF 2.2 None are applicable.
PO 2.3 Communal open space and centrally located recreation facilities are provided for guests and visitors.	DTS/DPF 2.3 12.5% or more of a caravan park comprises clearly defined communal open space, landscaped areas and areas for recreation.
PO 2.4 Perimeter landscaping is used to enhance the amenity of the locality.	DTS/DPF 2.4 None are applicable.
PO 2.5 Amenity blocks (showers, toilets, laundry and kitchen facilities) are sufficient to serve the full occupancy of the development.	DTS/DPF 2.5 None are applicable.
PO 2.6 Long-term occupation does not displace tourist accommodation, particularly in important tourist destinations such as coastal and riverine locations.	DTS/DPF 2.6 None are applicable.
Tourist accommodation in areas constituted under the National Parks and Wildlife Act 1972	
PO 3.1 Tourist accommodation avoids delicate or environmentally sensitive areas such as sand dunes, cliff tops, estuaries, wetlands or substantially intact strata of native vegetation (including regenerated areas of native vegetation lost through bushfire).	DTS/DPF 3.1 None are applicable.
PO 3.2	DTS/DPF 3.2

<p>Tourist accommodation is sited and designed in a manner that is subservient to the natural environment and where adverse impacts on natural features, landscapes, habitats and cultural assets are avoided.</p>	None are applicable.
<p>PO 3.3</p> <p>Tourist accommodation and recreational facilities, including associated access ways and ancillary structures, are located on cleared (other than where cleared as a result of bushfire) or degraded areas or where environmental improvements can be achieved.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>
<p>PO 3.4</p> <p>Tourist accommodation is designed to prevent conversion to private dwellings through:</p> <ul style="list-style-type: none"> <li>(a) comprising a minimum of 10 accommodation units</li> <li>(b) clustering separated individual accommodation units</li> <li>(c) being of a size unsuitable for a private dwelling</li> <li>(d) ensuring functional areas that are generally associated with a private dwelling such as kitchens and laundries are excluded from, or physically separated from individual accommodation units, or are of a size unsuitable for a private dwelling.</li> </ul>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>

## Transport, Access and Parking

### Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Movement Systems	
<p>PO 1.1</p> <p>Development is integrated with the existing transport system and designed to minimise its potential impact on the functional performance of the transport system.</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Development is designed to discourage commercial and industrial vehicle movements through residential streets and adjacent other sensitive receivers.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
<p>PO 1.3</p> <p>Industrial, commercial and service vehicle movements, loading areas and designated parking spaces are separated from passenger vehicle car parking areas to ensure efficient and safe movement and minimise potential conflict.</p>	<p>DTS/DPF 1.3</p> <p>None are applicable.</p>
<p>PO 1.4</p> <p>Development is sited and designed so that loading, unloading and turning of</p>	<p>DTS/DPF 1.4</p> <p>All vehicle manoeuvring occurs onsite.</p>

all traffic avoids interrupting the operation of and queuing on public roads and pedestrian paths.	
Sightlines	
PO 2.1 Sightlines at intersections, pedestrian and cycle crossings, and crossovers to allotments for motorists, cyclists and pedestrians are maintained or enhanced to ensure safety for all road users and pedestrians.	DTS/DPF 2.1 None are applicable.
PO 2.2 Walls, fencing and landscaping adjacent to driveways and corner sites are designed to provide adequate sightlines between vehicles and pedestrians.	DTS/DPF 2.2 None are applicable.
Vehicle Access	
PO 3.1 Safe and convenient access minimises impact or interruption on the operation of public roads.	DTS/DPF 3.1 The access is:  (a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land or (b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.
PO 3.2 Development incorporating vehicular access ramps ensures vehicles can enter and exit a site safely and without creating a hazard to pedestrians and other vehicular traffic.	DTS/DPF 3.2 None are applicable.
PO 3.3 Access points are sited and designed to accommodate the type and volume of traffic likely to be generated by the development or land use.	DTS/DPF 3.3 None are applicable.
PO 3.4 Access points are sited and designed to minimise any adverse impacts on neighbouring properties.	DTS/DPF 3.4 None are applicable.
PO 3.5 Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.	DTS/DPF 3.5 Vehicle access to designated car parking spaces satisfy (a) or (b): (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back: (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.
PO 3.6 Driveways and access points are separated and minimised in number to optimise the provision of on-street visitor parking (where on-street parking is appropriate).	DTS/DPF 3.6 Driveways and access points: (a) for sites with a frontage to a public road of 20m or less, one access point no greater than 3.5m in width is provided (b) for sites with a frontage to a public road greater than 20m: (i) a single access point no greater than 6m in width is provided or (ii) not more than two access points with a width of 3.5m each are provided.

<p>PO 3.7</p> <p>Access points are appropriately separated from level crossings to avoid interference and ensure their safe ongoing operation.</p>	<p>DTS/DPF 3.7</p> <p>Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing:</p> <ul style="list-style-type: none"> <li>(a) 80 km/h road - 110m</li> <li>(b) 70 km/h road - 90m</li> <li>(c) 60 km/h road - 70m</li> <li>(d) 50km/h or less road - 50m.</li> </ul>
<p>PO 3.8</p> <p>Driveways, access points, access tracks and parking areas are designed and constructed to allow adequate movement and manoeuvrability having regard to the types of vehicles that are reasonably anticipated.</p>	<p>DTS/DPF 3.8</p> <p>None are applicable.</p>
<p>PO 3.9</p> <p>Development is designed to ensure vehicle circulation between activity areas occurs within the site without the need to use public roads.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
Access for People with Disabilities	
<p>PO 4.1</p> <p>Development is sited and designed to provide safe, dignified and convenient access for people with a disability.</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>
Vehicle Parking Rates	
<p>PO 5.1</p> <p>Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:</p> <ul style="list-style-type: none"> <li>(a) availability of on-street car parking</li> <li>(b) shared use of other parking areas</li> <li>(c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared</li> <li>(d) the adaptive reuse of a State or Local Heritage Place.</li> </ul>	<p>DTS/DPF 5.1</p> <p>Development provides a number of car parking spaces on-site at a rate no less than the amount calculated using one of the following, whichever is relevant:</p> <ul style="list-style-type: none"> <li>(a) Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements</li> <li>(b) Transport, Access and Parking Table 2 - Off-Street Vehicle Parking Requirements in Designated Areas</li> <li>(c) if located in an area where a lawfully established carparking fund operates, the number of spaces calculated under (a) or (b) less the number of spaces offset by contribution to the fund.</li> </ul>
Vehicle Parking Areas	
<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>
<p>PO 6.2</p> <p>Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
<p>PO 6.3</p> <p>Vehicle parking areas are designed to provide opportunity for integration and shared-use of adjacent car parking areas to reduce the total extent of vehicle parking areas and access points.</p>	<p>DTS/DPF 6.3</p> <p>None are applicable.</p>
<p>PO 6.4</p> <p>Pedestrian linkages between parking areas and the development are provided and are safe and convenient.</p>	<p>DTS/DPF 6.4</p> <p>None are applicable.</p>
<p>PO 6.5</p> <p>Vehicle parking areas that are likely to be used during non-daylight hours are provided with sufficient lighting to entry and exit points to ensure clear</p>	<p>DTS/DPF 6.5</p> <p>None are applicable.</p>

visibility to users.	
PO 6.6 Loading areas and designated parking spaces for service vehicles are provided within the boundary of the site.	DTS/DPF 6.6 Loading areas and designated parking spaces are wholly located within the site.
PO 6.7 On-site visitor parking spaces are sited and designed to be accessible to all visitors at all times.	DTS/DPF 6.7 None are applicable.
Undercroft and Below Ground Garaging and Parking of Vehicles	
PO 7.1 Undercroft and below ground garaging of vehicles is designed to enable safe entry and exit from the site without compromising pedestrian or cyclist safety or causing conflict with other vehicles.	DTS/DPF 7.1 None are applicable.
Internal Roads and Parking Areas in Residential Parks and Caravan and Tourist Parks	
PO 8.1 Internal road and vehicle parking areas are surfaced to prevent dust becoming a nuisance to park residents and occupants.	DTS/DPF 8.1 None are applicable.
PO 8.2 Traffic circulation and movement within the park is pedestrian friendly and promotes low speed vehicle movement.	DTS/DPF 8.2 None are applicable.
Bicycle Parking in Designated Areas	
PO 9.1 The provision of adequately sized on-site bicycle parking facilities encourages cycling as an active transport mode.	DTS/DPF 9.1 Areas and / or fixtures are provided for the parking and storage of bicycles at a rate not less than the amount calculated using Transport, Access and Parking Table 3 - Off Street Bicycle Parking Requirements.
PO 9.2 Bicycle parking facilities provide for the secure storage and tethering of bicycles in a place where casual surveillance is possible, is well lit and signed for the safety and convenience of cyclists and deters property theft.	DTS/DPF 9.2 None are applicable.
PO 9.3 Non-residential development incorporates end-of-journey facilities for employees such as showers, changing facilities and secure lockers, and signage indicating the location of the facilities to encourage cycling as a mode of journey-to-work transport.	DTS/DPF 9.3 None are applicable.
Corner Cut-Offs	
PO 10.1 Development is located and designed to ensure drivers can safely turn into and out of public road junctions.	DTS/DPF 10.1 Development does not involve building work, or building work is located wholly outside the land shown as Corner Cut-Off Area in the following diagram:  

**Table 1 - General Off-Street Car Parking Requirements**

The following parking rates apply and if located in an area where a lawfully established carparking fund operates, the number of spaces is reduced by an amount equal to the number of spaces offset by contribution to the fund.

Class of Development	Car Parking Rate (unless varied by Table 2 onwards)
<b>Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.</b>	
Residential Development	
Detached Dwelling	<p>Dwelling with 1 bedroom (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 2 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
Group Dwelling	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p> <p>0.33 spaces per dwelling for visitor parking where development involves 3 or more dwellings.</p>
Residential Flat Building	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p> <p>0.33 spaces per dwelling for visitor parking where development involves 3 or more dwellings.</p>
Row Dwelling where vehicle access is from the primary street	<p>Dwelling with 1 bedroom (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 2 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
Row Dwelling where vehicle access is not from the primary street (i.e. rear-loaded)	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
Semi-Detached Dwelling	<p>Dwelling with 1 bedroom (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 2 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p>
Aged / Supported Accommodation	
Retirement village	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling.</p> <p>0.2 spaces per dwelling for visitor parking.</p>
Supported accommodation	0.3 spaces per bed.
Residential Development (Other)	
Ancillary accommodation	No additional requirements beyond those associated with the main dwelling.
Residential park	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling.</p> <p>0.2 spaces per dwelling for visitor parking.</p>
Student accommodation	0.3 spaces per bed.
Workers' accommodation	0.5 spaces per bed plus 0.2 spaces per bed for visitor parking.
Tourist	

Caravan park / tourist park	<p>Parks with 100 sites or less - a minimum of 1 space per 10 sites to be used for accommodation.</p> <p>Parks with more than 100 sites - a minimum of 1 space per 15 sites used for accommodation.</p> <p>A minimum of 1 space for every caravan (permanently fixed to the ground) or cabin.</p>
Tourist accommodation	1 car parking space per accommodation unit / guest room.
Commercial Uses	
Auction room/ depot	1 space per 100m2 of building floor area plus an additional 2 spaces.
Automotive collision repair	3 spaces per service bay.
Call centre	8 spaces per 100m2 of gross leasable floor area.
Motor repair station	3 spaces per service bay.
Office	4 spaces per 100m2 of gross leasable floor area.
Retail fuel outlet	3 spaces per 100m2 gross leasable floor area.
Service trade premises	2.5 spaces per 100m2 of gross leasable floor area
Shop (no commercial kitchen)	<p>1 space per 100m2 of outdoor area used for display purposes.</p> <p>5.5 spaces per 100m2 of gross leasable floor area where not located in an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.</p> <p>5 spaces per 100m2 of gross leasable floor area where located in an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.</p>
Shop (in the form of a bulky goods outlet)	2.5 spaces per 100m2 of gross leasable floor area.
Shop (in the form of a restaurant or involving a commercial kitchen)	<p>Premises with a dine-in service only (which may include a take-away component with no drive-through) - 0.4 spaces per seat.</p> <p>Premises with take-away service but with no seats - 12 spaces per 100m2 of total floor area plus a drive-through queue capacity of ten vehicles measured from the pick-up point.</p> <p>Premises with a dine-in and drive-through take-away service - 0.3 spaces per seat plus a drive through queue capacity of 10 vehicles measured from the pick-up point.</p>
Community and Civic Uses	
Childcare centre	0.25 spaces per child
Community facility	10 spaces per 100m2 of total floor area.
Educational establishment	<p>For a primary school - 1.1 space per full time equivalent employee plus 0.25 spaces per student for a pickup/set down area either on-site or on the public realm within 300m of the site.</p> <p>For a secondary school - 1.1 per full time equivalent employee plus 0.1 spaces per student for a pickup/set down area either on-site or on the public realm within 300m of the site.</p> <p>For a tertiary institution - 0.4 per student based on the maximum number of students on the site at any time.</p>
Hall / meeting hall	0.2 spaces per seat.
Library	4 spaces per 100m2 of total floor area.
Place of worship	1 space for every 3 visitor seats.
Pre-school	1 per employee plus 0.25 per child (drop off/pick up bays)
Health Related Uses	
Consulting room	4 spaces per consulting room excluding ancillary facilities.
Hospital	<p>4.5 spaces per bed for a public hospital.</p> <p>1.5 spaces per bed for a private hospital.</p>
Recreational and Entertainment Uses	
Cinema complex	.2 spaces per seat.
Concert hall / theatre	0.2 spaces per seat.
Hotel	1 space for every 2m2 of total floor area in a public bar plus 1 space for every 6m2 of total floor area available to the public in a lounge, beer garden plus 1 space per 2 gaming machines, plus 1 space per 3 seats in a restaurant.
Indoor recreation facility	6.5 spaces per 100m2 of total floor area for a Fitness Centre



	4.5 spaces per 100m2 of total floor area for all other Indoor recreation facilities.
Industry/Employment Uses	
Fuel depot	1.5 spaces per 100m2 total floor area 1 spaces per 100m2 of outdoor area used for fuel depot activity purposes.
Industry	1.5 spaces per 100m2 of total floor area.
Store	0.5 spaces per 100m2 of total floor area.
Timber yard	1.5 spaces per 100m2 of total floor area 1 space per 100m2 of outdoor area used for display purposes.
Warehouse	0.5 spaces per 100m2 total floor area.
Other Uses	
Funeral Parlour	1 space per 5 seats in the chapel plus 1 space for each vehicle operated by the parlour.
Radio or Television Station	5 spaces per 100m2 of total building floor area.

**Table 2 - Off-Street Car Parking Requirements in Designated Areas**

The following parking rates apply in any zone, subzone or other area described in the 'Designated Areas' column subject to the following:

- (a) the location of the development is unable to satisfy the requirements of Table 2 – Criteria (other than where a location is exempted from the application of those criteria)  
or
- (b) the development satisfies Table 2 – Criteria (or is exempt from those criteria) and is located in an area where a lawfully established carparking fund operates, in which case the number of spaces are reduced by an amount equal to the number of spaces offset by contribution to the fund.

Class of Development	Car Parking Rate		Designated Areas
	Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.		
	Minimum number of spaces	Maximum number of spaces	
Development generally			
All classes of development	No minimum.	No maximum except in the Primary Pedestrian Area identified in the Primary Pedestrian Area Concept Plan, where the maximum is:  1 space for each dwelling with a total floor area less than 75 square metres  2 spaces for each dwelling with a total floor area between 75 square metres and 150 square metres  3 spaces for each dwelling with a total floor area greater than 150 square metres.  Residential flat building or Residential component of a multi-storey building: 1 visitor space for each 6 dwellings.	Capital City Zone  City Main Street Zone  City Riverbank Zone  Adelaide Park Lands Zone  Business Neighbourhood Zone (within the City of Adelaide)  The St Andrews Hospital Precinct Subzone and Women's and Children's Hospital Precinct Subzone of the Community Facilities Zone
Non-residential development			
Non-residential development excluding tourist accommodation	3 spaces per 100m2 of gross leasable floor area.	5 spaces per 100m2 of gross leasable floor area.	City Living Zone  Urban Corridor (Boulevard) Zone  Urban Corridor (Business) Zone

			Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone
Non-residential development excluding tourist accommodation	3 spaces per 100m2 of gross leasable floor area.	6 spaces per 100m2 of gross leasable floor area.	Strategic Innovation Zone Suburban Activity Centre Zone Suburban Business Zone Business Neighbourhood Zone Suburban Main Street Zone Urban Activity Centre Zone
Tourist accommodation	1 space for every 4 bedrooms up to 100 bedrooms plus 1 space for every 5 bedrooms over 100 bedrooms	1 space per 2 bedrooms up to 100 bedrooms and 1 space per 4 bedrooms over 100 bedrooms	City Living Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone
Residential development			
Residential component of a multi-storey building	Dwelling with no separate bedroom -0.25 spaces per dwelling  1 bedroom dwelling - 0.75 spaces per dwelling  2 bedroom dwelling - 1 space per dwelling  3 or more bedroom dwelling - 1.25 spaces per dwelling  0.25 spaces per dwelling for visitor parking.	None specified.	City Living Zone Strategic Innovation Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone
Residential flat building	Dwelling with no separate bedroom -0.25 spaces per dwelling  1 bedroom dwelling - 0.75 spaces per dwelling  2 bedroom dwelling - 1 space per dwelling  3 or more bedroom dwelling - 1.25 spaces per dwelling  0.25 spaces per dwelling for visitor parking.	None specified.	City Living Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone

Table 2 - CriteriaThe following criteria are used in conjunction with Table 2. The 'Exception' column identifies locations where the criteria do not apply and the car parking rates in Table 2 are applicable.

Criteria	Exceptions
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<p><b>The designated area is wholly located within Metropolitan Adelaide and any part of the development site satisfies one or more of the following:</b></p> <p>(a) is within 200 metres of any section of road reserve along which a bus service operates as a high frequency public transit service<sup>(2)</sup></p> <p>(b) is within 400 metres of a bus interchange<sup>(1)</sup></p> <p>(c) is within 400 metres of an O-Bahn interchange<sup>(1)</sup></p> <p>(d) is within 400 metres of a passenger rail station<sup>(1)</sup></p> <p>(e) is within 400 metres of a passenger tram station<sup>(1)</sup></p> <p>(f) is within 400 metres of the Adelaide Parklands.</p>	<p>(a) All zones in the City of Adelaide</p> <p>(b) Strategic Innovation Zone in the following locations:</p> <p>(i) City of Burnside</p> <p>(ii) City of Marion</p> <p>(iii) City of Mitcham</p> <p>(c) Urban Corridor (Boulevard) Zone</p> <p>(d) Urban Corridor (Business) Zone</p> <p>(e) Urban Corridor (Living) Zone</p> <p>(f) Urban Corridor (Main Street ) Zone</p> <p>(g) Urban Neighbourhood Zone</p>
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[NOTE(S): (1) Measured from an area that contains any platform(s), shelter(s) or stop(s) where people congregate for the purpose waiting to board a bus, tram or train, but does not include areas used for the parking of vehicles. (2) A high frequency public transit service is a route serviced every 15 minutes between 7.30am and 6.30pm Monday to Friday and every 30 minutes at night, Saturday, Sunday and public holidays until 10pm.]

**Table 3 - Off-Street Bicycle Parking Requirements**

The bicycle parking rates apply within designated areas located within parts of the State identified in the Schedule to Table 3.

Class of Development	Bicycle Parking Rate	
	<b>Where a development comprises more than one development type, then the overall bicycle parking rate will be taken to be the sum of the bicycle parking rates for each development type.</b>	
Consulting room	1 space per 20 employees plus 1 space per 20 consulting rooms for customers.	
Educational establishment	For a secondary school - 1 space per 20 full-time time employees plus 10 percent of the total number of employee spaces for visitors.  For tertiary education - 1 space per 20 employees plus 1 space per 10 full time students.	
Hospital	1 space per 15 beds plus 1 space per 30 beds for visitors.	
Indoor recreation facility	1 space per 4 employees plus 1 space per 200m <sup>2</sup> of gross leasable floor area for visitors.	
Licensed Premises	1 per 20 employees, plus 1 per 60 square metres total floor area, plus 1 per 40 square metres of bar floor area, plus 1 per 120 square metres lounge and beer garden floor area, plus 1 per 60 square metres dining floor area, plus 1 per 40 square metres gaming room floor area.	
Office	1 space for every 200m <sup>2</sup> of gross leasable floor area plus 2 spaces plus 1 space per 1000m <sup>2</sup> of gross leasable floor area for visitors.	
Pre-school	1 space per 20 full time employees plus 1 space per 40 full time children.	
Recreation area	1 per 1500 spectator seats for employees plus 1 per 250 visitor and customers.	
Residential flat building	Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors, and in all other cases 1 space for every 4 dwellings for residents plus 1 for every 10 dwellings for visitors.	
Residential component of a multi-storey building	Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors, and in all other cases 1 space for every 4 dwellings for residents plus 1 space for every 10 dwellings for visitors.	
Shop	1 space for every 300m <sup>2</sup> of gross leasable floor area plus 1 space for every 600m <sup>2</sup> of gross leasable floor area for customers.	
Tourist accommodation	1 space for every 20 employees plus 2 for the first 40 rooms and 1 for every additional 40 rooms for visitors.	
Schedule to Table 3	Designated Area	Relevant part of the State
	All zones	The bicycle parking rate applies to a designated area located in a relevant part of the State described below.  City of Adelaide
	Business Neighbourhood Zone Strategic Innovation Zone	Metropolitan Adelaide

	Suburban Activity Centre Zone Suburban Business Zone Suburban Main Street Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street ) Zone Urban Neighbourhood Zone	
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**Waste Treatment and Management Facilities**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Mitigation of the potential environmental and amenity impacts of waste treatment and management facilities.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting	
PO 1.1 Waste treatment and management facilities incorporate separation distances and attenuation measures within the site between waste operations areas (including all closed, operating and future cells) and sensitive receivers and sensitive environmental features to mitigate off-site impacts from noise, air and dust emissions.	DTS/DPF 1.1 None are applicable.
Soil and Water Protection	
PO 2.1 Soil, groundwater and surface water are protected from contamination from waste treatment and management facilities through measures such as: <ul style="list-style-type: none"> <li>(a) containing potential groundwater and surface water contaminants within waste operations areas</li> <li>(b) diverting clean stormwater away from waste operations areas and potentially contaminated areas</li> <li>(c) providing a leachate barrier between waste operations areas and underlying soil and groundwater.</li> </ul>	DTS/DPF 2.1 None are applicable.
PO 2.2 Wastewater lagoons are set back from watercourses to minimise	DTS/DPF 2.2 Wastewater lagoons are set back 50m or more from watercourse banks.

environmental harm and adverse effects on water resources.	
PO 2.3 Wastewater lagoons are designed and sited to:  (a) avoid intersecting underground waters; (b) avoid inundation by flood waters; (c) ensure lagoon contents do not overflow; (d) include a liner designed to prevent leakage.	DTS/DPF 2.3  None are applicable.
PO 2.4 Waste operations areas of landfills and organic waste processing facilities are set back from watercourses to minimise adverse impacts on water resources.	DTS/DPF 2.4  Waste operations areas are set back 100m or more from watercourse banks.
Amenity	
PO 3.1 Waste treatment and management facilities are screened, located and designed to minimise adverse visual impacts on amenity.	DTS/DPF 3.1  None are applicable.
PO 3.2 Access routes to waste treatment and management facilities via residential streets is avoided.	DTS/DPF 3.2  None are applicable.
PO 3.3 Litter control measures minimise the incidence of windblown litter.	DTS/DPF 3.3  None are applicable.
PO 3.4 Waste treatment and management facilities are designed to minimise adverse impacts on both the site and surrounding areas from weed and vermin infestation.	DTS/DPF 3.4  None are applicable.
Access	
PO 4.1 Traffic circulation movements within any waste treatment or management site are designed to enable vehicles to enter and exit the site in a forward direction.	DTS/DPF 4.1  None are applicable.
PO 4.2 Suitable access for emergency vehicles is provided to and within waste treatment or management sites.	DTS/DPF 4.2  None are applicable.
Fencing and Security	
PO 5.1 Security fencing provided around waste treatment and management facilities prevents unauthorised access to operations and potential hazard to the public.	DTS/DPF 5.1  Chain wire mesh or pre-coated painted metal fencing 2m or more in height is erected along the perimeter of the waste treatment or waste management facility site.
Landfill	
PO 6.1 Landfill gas emissions are managed in an environmentally acceptable manner.	DTS/DPF 6.1  None are applicable.
PO 6.2 Landfill facilities are separated from areas of environmental significance and land used for public recreation and enjoyment.	DTS/DPF 6.2  Landfill facilities are set back 250m or more from a public open space reserve, forest reserve, national park or Conservation Zone.
PO 6.3 Landfill facilities are located on land that is not subject to land slip.	DTS/DPF 6.3  None are applicable.
PO 6.4 Landfill facilities are separated from areas subject to flooding.	DTS/DPF 6.4  Landfill facilities are set back 500m or more from land inundated in a 1% AEP flood event.

Organic Waste Processing Facilities	
PO 7.1 Organic waste processing facilities are separated from the coast to avoid potential environment harm.	DTS/DPF 7.1 Organic waste processing facilities are set back 500m or more from the coastal high water mark.
PO 7.2 Organic waste processing facilities are located on land where the engineered liner and underlying seasonal water table cannot intersect.	DTS/DPF 7.2 None are applicable.
PO 7.3 Organic waste processing facilities are sited away from areas of environmental significance and land used for public recreation and enjoyment.	DTS/DPF 7.3 Organic waste processing facilities are set back 250m or more from a public open space reserve, forest reserve, national park or a Conservation Zone.
PO 7.4 Organic waste processing facilities are located on land that is not subject to land slip.	DTS/DPF 7.4 None are applicable.
PO 7.5 Organic waste processing facilities separated from areas subject to flooding.	DTS/DPF 7.5 Organic waste processing facilities are set back 500m or more from land inundated in a 1% AEP flood event.
Major Wastewater Treatment Facilities	
PO 8.1 Major wastewater treatment and disposal systems, including lagoons, are designed to minimise potential adverse odour impacts on sensitive receivers, minimise public and environmental health risks and protect water quality.	DTS/DPF 8.1 None are applicable.
PO 8.2 Artificial wetland systems for the storage of treated wastewater are designed and sited to minimise potential public health risks arising from the breeding of mosquitoes.	DTS/DPF 8.2 None are applicable.

**Workers' accommodation and Settlements**

**Assessment Provisions (AP)**

Desired Outcome (DO)

Desired Outcome	
DO 1	Appropriately designed and located accommodation for seasonal and short-term workers in rural areas that minimises environmental and social impacts.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Workers' accommodation and settlements are obscured from scenic routes, tourist destinations and areas of conservation significance or otherwise designed to complement the surrounding landscape.	DTS/DPF 1.1 None are applicable.
PO 1.2	DTS/DPF 1.2

Workers' accommodation and settlements are sited and designed to minimise nuisance impacts on the amenity of adjacent users of land.	None are applicable.
PO 1.3 Workers' accommodation and settlements are built with materials and colours that blend with the landscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Workers' accommodation and settlements are supplied with service infrastructure such as power, water and effluent disposal sufficient to satisfy the living requirements of workers.	DTS/DPF 1.4 None are applicable.

No criteria applies to this land use. Please check the definition of the land use for further detail.