

<b>Technical Report</b>			
<b>TRIM Number:</b>	<b>PA20/962</b>	<b>Synergy Number:</b>	<b>PA20/962</b>
<b>Lodgement Date:</b>	<b>14/10/2020</b>	<b>DAU Date:</b>	
<b>Address:</b>	<b>Lot 118, 243 Foxton Drive, Oxford</b>		
<b>Proposal:</b>	<b>Solar Panel Installation</b>		
<b>Land Use:</b>	<b>'Residential – Single House' or 'Dwelling'</b>	<b>Permissibility:</b>	<b>AA</b>
<b>Owner:</b>	<b>Martin Skinner</b>		
<b>Applicant:</b>	<b>Ross Wilkins</b>		
<b>Zoning:</b>	<b>Rural Groundwater Protection &amp; Special Rural</b>	<b>Density Code:</b>	<b>NA &amp; R2</b>
<b>Delegation Type:</b>	<b>12.1.1</b>	<b>Officer:</b>	<b>Ryan Fleming</b>
<b>Site Inspection:</b>	<b>No – applicant asked not to and sent in photos</b>		
<b>Advertising:</b>	<b>Yes – From 19 October 2020 – 9 November 2020</b>		
<b>Outstanding Internal Referrals:</b>	<b>No</b>		
<b>External Referrals:</b>	<b>No</b>		
<b>Within a Bushfire Prone Area:</b>	<b>Yes</b>		
Part 10A, Cl. 78B of the Planning and Development (Local Planning Schemes) Regulations 2015 exempts the requirement for a BAL assessment.			

### **Introduction:**

A planning application has been received on 14 October 2020 for proposed solar panel installation at Lot 118, 243 Foxton Drive, Oxford.

The subject lot is zoned 'Rural Groundwater Protection' and 'Special Rural' in accordance with the Shire's Town Planning Scheme No. 2 (TPS2). The solar panel installation is considered to fall within the existing 'residential – single house/dwelling' use which is able to be considered within the zone in accordance with the Shire's TPS2.

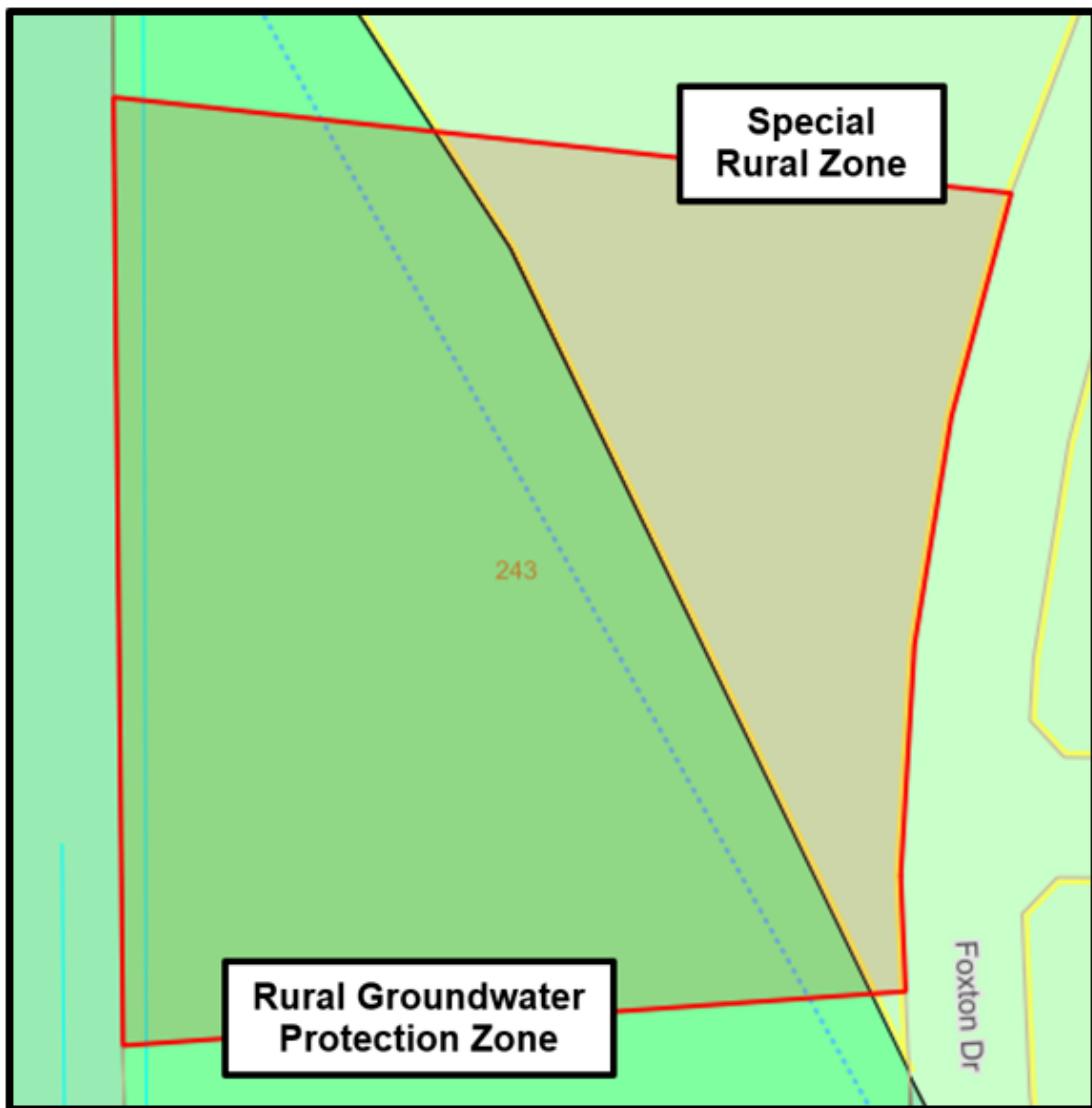
The proposal is reported to DAU for determination as Officers have delegation to determine a use within the 'Rural Groundwater Protection' zone under delegation 12.1.1.

This report recommends that the solar panel installation as proposed be approved subject to appropriate conditions.

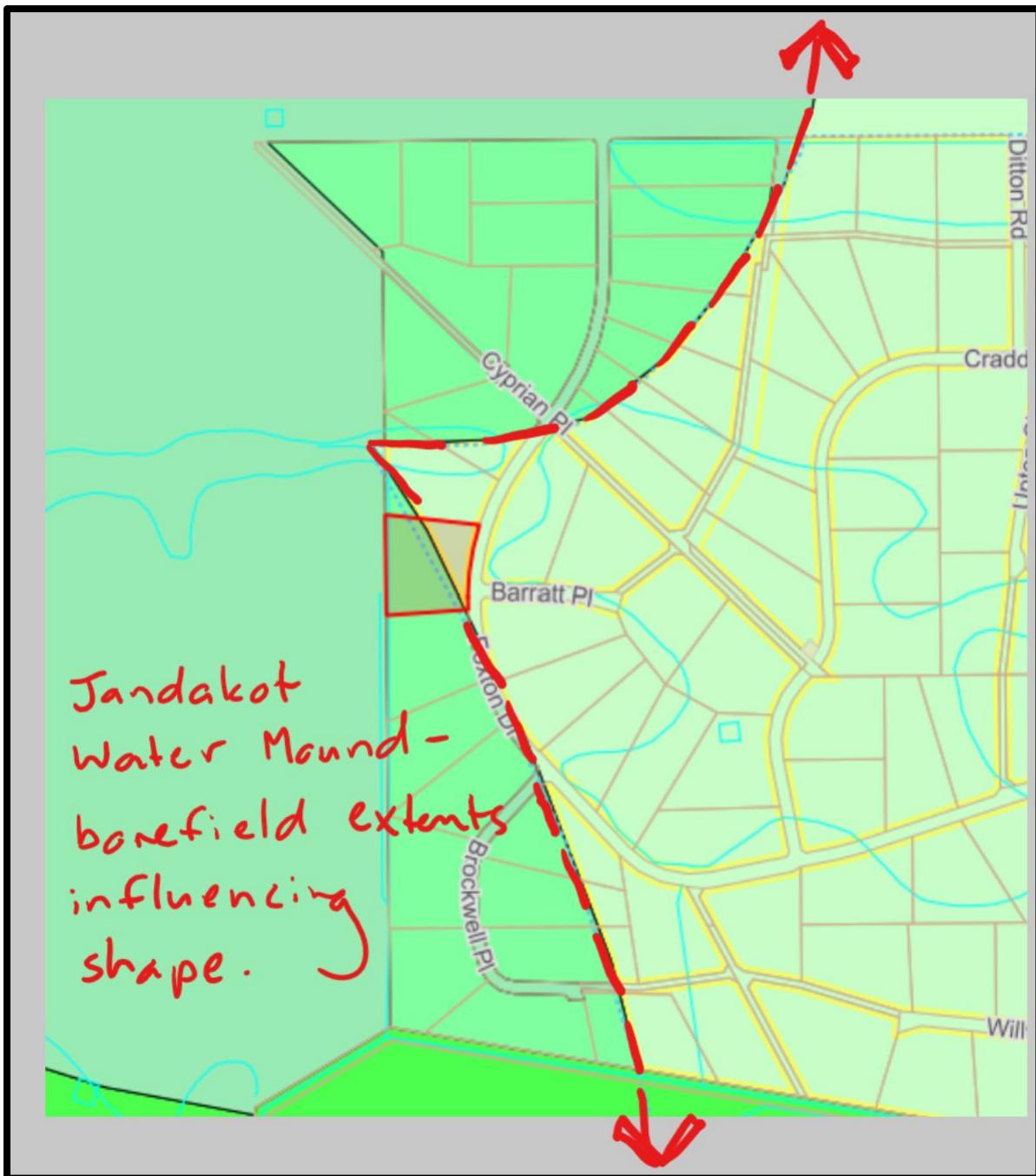
### **Background:**

#### **Existing Development:**

The subject site comprises of a rural living property, with dense vegetation surrounding a cleared area at the centre in which the development is located. The site is developed with a single dwelling, swimming pool, water tanks and outbuildings. The property has a split zoning of 'Rural Groundwater Protection' and 'Special Rural', as depicted on the plan below. This 'split' zoning accounts for the mapped extent of the Jandakot Water Mound, which has a spatial location based upon bore fields and their associated extraction zone.



**Figure 1: Zoning map**



### Water Mound Shape and Interface

#### Proposed Development/Site Context:

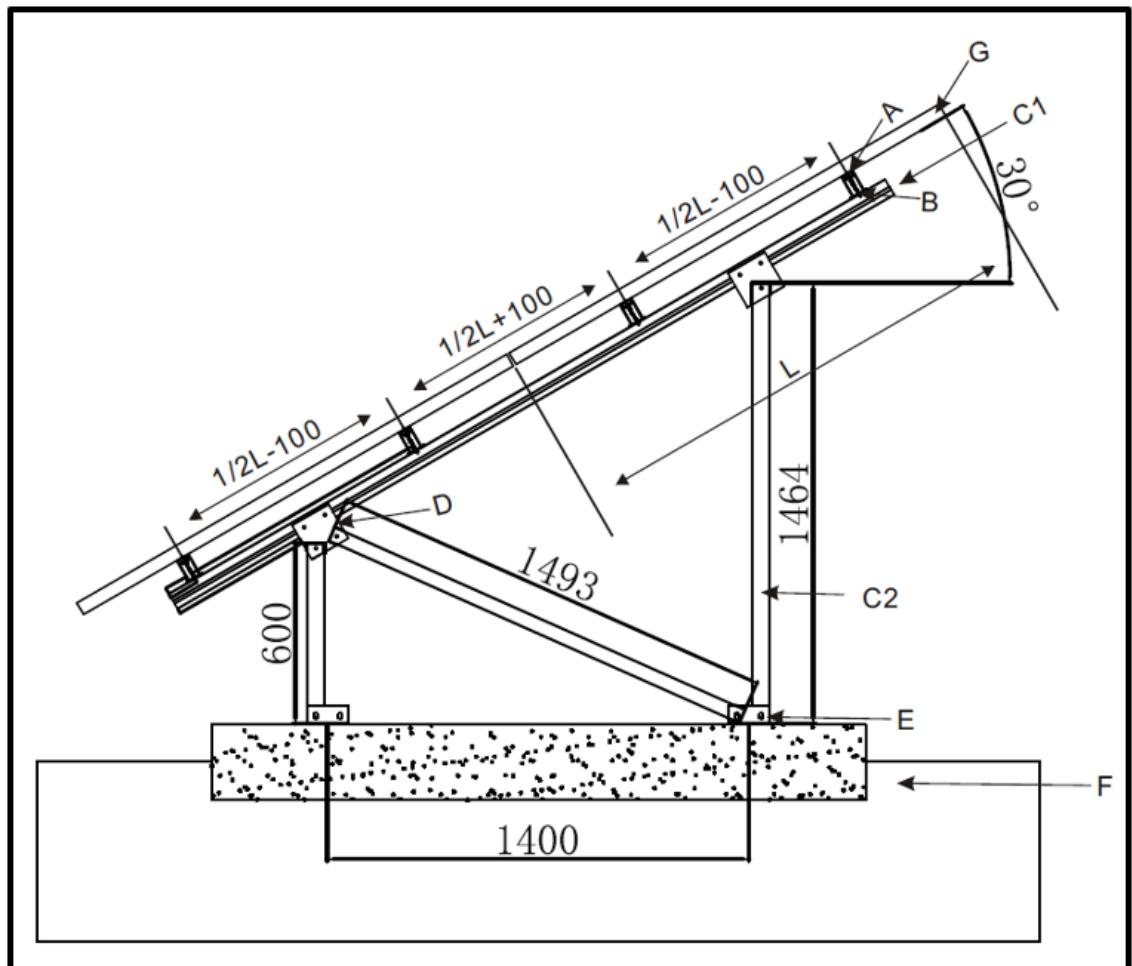
The application seeks approval for a solar panel installation. This involves two separate panel arrays, the first array with 48 panels and the second array with 24 panels. A transportable structure is also proposed to be used for the purpose of storing the batteries and inverters associated with the solar panels. The proposed development is to be located towards the rear of the site, 14.4m from the nearest property boundary to the west and 56.2m to the southern property boundary. No vegetation is proposed to be removed as part of the proposal.



**Figure 2: Site plan**



**Figure 3: Location of solar panel arrays and the transportable**



**Figure 4: Solar panel elevation**

The applicant has advised that the electricity generated by the solar panels is to power multiple split systems, heat pumps, hot water, multiple servers associated with a home office and a future swimming pool heat pump.

### **Community / Stakeholder Consultation:**

Advertising was carried out for a period of 21 days, from 8 September 2020 to 29 September 2020 to the neighbouring properties to the south and west who were considered the affected landowners, in accordance with LPP4.1 – Consultation for Planning Matters.

During this period two submissions were received objecting to the proposal. A summary of the submissions along with a response from the applicant is contained within the summary of submissions (E21/834). The relevant issues raised in the objections area as follows:

- Bushfire risk;
- Health related risks;
- Visual impact; and
- The use of the solar panels generated energy.

These issues are discussed in detail later in the report.

### **Statutory Environment:**

- *Planning and Development Act 2005*
- *Planning and Development (Local Planning Schemes) Regulations 2015*
- Shire of Serpentine Jarrahdale Town Planning Scheme No. 2
- Rural Strategy Review 2013
- State Planning Policy 7.3 – Residential Design Codes Volume 1 (R-Codes)

### **Planning Assessment:**

A comprehensive assessment has been undertaken in accordance with section 67 of the Planning and Development Regulations 2015, the assessment can be viewed as part of the attachment.

### Land Use:

The portion of the lot in which the proposed solar panel installation is proposed is within the 'Rural Groundwater Protection' zone. As previously mentioned, the use of the solar panels is to power a number of items around the property, associated with the residential use. The proposal would therefore fall within the 'Residential – Single House' land use.

Clause 5.1202 of TPS2 states that a 'Dwelling' land use is a discretionary land use within the zone as such the development is capable of approval.

### **Orderly and Proper Planning:**

Clause 67 of the regulations, specifically A – J, considers state and local planning policy frameworks including draft schemes, strategies, state planning policies, local planning policies and the like. These frameworks provide guidance in order to establish if a development is consistent with orderly and proper planning.

TPS2:

Clause 5.20.1 of TPS2 states that development within the 'Rural Groundwater Protection' zone shall be in accordance with State Planning Policy 2.3 – Jandakot Groundwater Protection Policy (SPP2.3). This is discussed later in the report.

Clause 5.20.3 of TPS2 states that uses shall only be supported within the zone where there is not, "*excessive nutrient application or clearing of land, or risk of damage to any on site vegetation or risk of contamination to the Jandakot Groundwater Protection area.*" In this instance, the solar panel installation would be located within a cleared area of the site, with no vegetation removal proposed.

By nature, solar panels would not contribute to any nutrient application to the groundwater. Officers consider that the application is therefore consistent with the intent of the zone in accordance with TPS2.

SPP2.3:

The purpose of SPP2.3 is to protect the Jandakot Groundwater Protection area from any detrimental effects, through the regulation of land use and provision of factors to consider in assessing development. This involves consideration to be given to the removal of vegetation (especially native vegetation), any possible nutrient export from a proposal and ensuring suitable land uses are conducted within the area. In this instance the development proposed is associated with the existing residential use of the property, not resulting in any vegetation removal or nutrient export. Officers consider that the proposal is consistent with SPP2.3 and that it would not adversely impact the Jandakot Groundwater Protection area.

Local Planning Scheme No.3 (LPS3):

LPS3 is currently being advertised. As such, it is a seriously entertained document and has to be considered during the planning assessment. It is noted that the subject property is proposed to be rezoned from 'Rural Groundwater Protection' to 'Rural Residential' in LPS3. The proposed solar panel installation would fall within the 'single house' land use in LPS3, which is a permitted land use within the 'Rural Residential' zone. Therefore, Officers consider that the proposed solar panel installation would not adversely prejudice the implementation of LPS3.

Rural Strategy 2013 Review:

The Shire's Rural Strategy 2013 Review (Strategy) outlines key themes that future development within rural areas should be considered against. Generally, the Strategy requires rural areas to maintain a rural character, retain natural assets and facilitate productive rural areas by ensuring the areas are economically productive. Officers consider the proposed solar installation in this instance does not visually impact on any neighbouring properties, nor result in the removal of any natural assets. The power generated is considered to facilitate/be associated with a permitted land use within the rural area.

R-Code Assessment:

Although the area of the property does not have a density code under the R-Codes, requirements of the R-Codes are still considered relevant in determining the suitability of the residential development on the locality. This is due to Clause 5.3.4 of TPS2, which states, "*the development of land for any of the residential purposes dealt with by the Residential Planning Codes shall conform to the provisions of those codes*". In addition, Clause 2.1.4 of the R-Codes states, "*All residential development is to comply with the requirements of the R-*

Codes." Therefore, Officers have assessed the proposal against the deemed-to-comply provisions of the R-Codes that are not R-Code specific and in all other cases the design principles of the R-Codes have been assessed.

Form of Development and Amenity:

Clause 67 of the Deemed Provisions, specifically K, L, M, N, P, all relate to the form and amenity of the development that is required to be assessed.

<b>5.4.3 EXTERNAL FIXTURE</b>		
<b>Provision</b>	<b>OK</b>	<b>Comment</b>
<b>i. not visible from the primary street;</b>	Y	It is located approximately 95m away from the primary street, set behind the dwelling and dense vegetation. It is not considered visible.
<b>ii. are designed to integrate with the building; or</b>	N	The solar installation is set away from the house and not on the roof of a structure, so it is not considered to be integrated by way of siting with the existing buildings on site, however -
<b>iii. are located so as not to be visually obtrusive.</b>	Y	The panels are to be located 14m to the nearest boundary to the rear and surrounded by dense vegetation. This means it is not visible to the surrounding properties, meeting the d-t-c requirements.

The Design Principle for solar panels under State Planning Policy 7.3 Residential Design Codes (Volume 1) (R-Codes) states solar panels are acceptable where they are "*integrated into the design of the building to not be visually obtrusive when viewed from the street and to protect the visual amenity of surrounding properties*".

Concerns were raised in an objection in relation to the proposal having an adverse visual amenity impact and glare from the solar panels, impacting neighbouring properties. This was an important issue to assess in respect of the relevant levels of public and private amenity that are expected to be provided and maintained in the relevant zone and locality.

Officers note that the subject site and surrounding properties are densely vegetated. Between the location of the proposed development and the nearest dwelling, there is in excess of 30m of vegetation with a height greater than 2m, as shown in Figure 5 below.



Figure 5: Proposed location of the solar panel installation and surrounding vegetation



The solar panel arrays would be facing the north, where the setback of the proposed development is in excess of 80m. Officers therefore, do not consider that the solar panels would be visible from neighbouring properties and due to their orientation are not expected to have an adverse amenity impact by way of glare, consistent with the Design Principle of the R-Codes.

*Transportable:*

The application also seeks approval for a 14.4m<sup>2</sup> transportable structure to house the batteries and inverters that store and convert the generated energy to be usable. Officers consider the structure to be small in scale, only having a height of 2.6m, would not be visible from the neighbouring properties due to the large and dense vegetation remaining between all surrounding sites. It would be nearest to the rear boundary with a setback of 32m. Officers therefore have no concern that this structure would adversely impact the locality.

*Health Impacts:*

An objection raised concerns that the solar panel installation would result in an adverse health impact to the locality. This was particularly in relation to concerns about electro-magnetic fields at the solar inverters. The solar inverter is the part of the system which converts the captured solar energy into AC electricity which can be fed into the home system. Officers note that the Australian Radiation Protection and Nuclear Safety Agency establishes that there is no evidence of health effects from exposure to electric and magnetic fields and the levels near solar inverters. Nevertheless, the solar inverter is not in close proximity to any property boundary and is to be stored within the transportable structure. Officers do not consider there to be any adverse health impacts due to the solar panel installation.

*Fire Management:*

Concerns were also raised in relation to the potential fire risk associated with the solar panels. Fires which start from ground mounted solar panels are extremely rare. Any risk would be associated with a poor installation of the collectors (batteries). However, the batteries are enclosed within the proposed transportable structure. Officers consider that the threat of fire would not stem from the solar panels themselves and they would not pose a risk of ignition. As with any infrastructure, its proper installation, commissioning and ongoing maintenance will address such risk.

**Options and Implications:**

Option 1: That Council APPROVES the application subject to conditions.

Option 2: That Council APPROVES the application subject to the same conditions as Option 1, except to require the western side boundary setback be increased by a further 5m to provide greater separation to the western adjoining land.

Option 3: That Council REFUSES the application subject to reasons.

Option 1 is recommended.

**Conclusion:**

The application seeks approval for the installation of a solar panel system at the subject property. The power generated is intended to be used for residential related purposes.

Officers consider that the interface with the surrounding properties as comprised with layers of vegetation, coupled with the northern orientation of the solar installation, means that elements of private and public amenity will not be adversely affected. The assessment further identifies that risks associated with health or fire related concerns will be addressed and suitably managed. The application is therefore recommended for approval subject to conditions.

**Attachments:**

Deemed Provisions – Cl 67 Matters to be considered by local Government

**Land Use:**

a) The aims and provisions of this Scheme and any other local planning scheme operating within the area	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
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**Comment:** refer to TPS2 comments

b) The requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> or any other proposed planning instrument that the local government is seriously considering adopting or approving	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
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**Comment:** refer to LPS3 comments

c) any approved State planning policy	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
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**Comment:** refer to R-Code section

d) any environmental protection policy approved under the <i>Environmental Protection Act 1986</i> section 31(d) – <b>None</b> <b>Applicable to this area from what I can determine</b>	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
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**Comment:**

e) any policy of the Commission	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
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**Comment:**

f) any policy of the State	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
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**Comment:** refer to R-Code section

g) any local planning policy for the Scheme area	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

h) any structure plan, activity centre plan or local development plan that relates to the development	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

i) any report of the review of the local planning scheme that has been published under the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

j) in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

## Development:

k) the built heritage conservation of any place that is of cultural significance	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

l) the effect of the proposal on the cultural heritage significance of the area in which the development is located	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

m) the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
<b>Comment:</b> refer to the R-Code assessment			

n) the amenity of the locality including the following – I. Environmental impacts of the development II. The character of the locality	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
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III. Social impacts of the development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comment: consistent land use within the zone and no visual impact to the locality</b>			

o) the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comment:</b>			

p) whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comment:</b>			

q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bushfire, soil erosion, land degradation or any other risk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comment: refer to bushfire section</b>			

r) the suitability of the land for the development taking into account the possible risk to human health or safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comment: refer to health impacts section</b>			

s) the adequacy of – I. The proposed means of access to and egress from the site; and II. Arrangements for the loading, unloading, manoeuvring and parking of vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comment:</b>			

t) the amount of traffic likely to be generated by the development, particularly in relation to the capacity off the road system in the locality and the probable effect on traffic flow and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comment:</b>			

u) the availability and adequacy for the development of the following – I. Public transport services II. Public utility services III. Storage, management and collection of waste IV. Access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. Access by older people and people with disability			
<b>Comment:</b>			

v) the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

w) the history of the site where the development is to be located	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

x) the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

y) any submissions received on the application	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	N/A <input type="checkbox"/>
<b>Comment: 2 objections discussed in the consultation section</b>			

Za) the comments or submissions received from any authority consulted under clause 66	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			

Zb) any other planning consideration the local government considers appropriate	YES <input type="checkbox"/>	NO <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
<b>Comment:</b>			