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Our Ref: 200913

24 May 2021

Aaron Elad
Outback Spirit Tours Pty Ltd

Dear Aaron

RE: BUSHFIRE PRONE PLANNING'S RESPONSE TO DFES ADVICE DATED 13 OCTOBER 2020 (DFES REFERENCE D14409) REGARDING VULNERABLE LAND USE – LOT 25 PORT WARRENDER ROAD, MITCHELL PLATEAU – NGAUWUDU SAFARI CAMP

Please find my response to the DFES advice and our proposed actions in the following tables.

If you wish to discuss these further, please do not hesitate to contact [me/this office].

Yours sincerely

A handwritten signature in black ink that reads "K. Nastov".

Kathy Nastov
Director
Bushfire Prone Planning

1. Policy Measure 6.5 a) Preparation of a BAL contour map

DFES Advice			BPP Response / Actions
Issue	Assessment	Action	
BMP Methodology	The BMP does not align with the (revised) scope of the proposed development. The BMP should be amended to delete reference to the formerly proposed additional Eco-tents, clarify the intent of providing an on-site refuge building, and to ensure alignment with the Development Application.	Modification of the BMP required.	The BMP reflects the current development proposal. The existing Office/Restaurant building is to be adopted as the onsite shelter building. No modification of the BMP is required.
Vegetation Management	<p>DFES notes that management to a low-threat status in accordance with AS3959 affords a lower level of protection than that specified for an Asset Protection Zone (APZ) by Schedule 1 of the Guidelines. Clearing of trees including within riparian areas and groundcover will be required to validate the BAL-ratings.</p> <p>Clearing of vegetation is subject to approval by the Wunambal Gaambera Aboriginal Corporation. The BMP states in Table 6.1 that a landowner (developer) action is to maintain the APZ to the standard established by the Guidelines <i>as far as practical and acceptable to the Wunambal Gaambera landowners</i>. Based on the information provided in the BMP, DFES is not confident that clearing to an APZ standard will be undertaken, particularly riparian vegetation along the creek line.</p> <p>Whilst photography provided to support areas currently managed to low threat does indicate reduced <i>ground</i> fuel loads in the vicinity of the Eco-tents, only photo ID 4f is currently deemed to be a 'cultivated garden'. Where fuel loads are to be retained the BMP should address how moisture content and flammability is to be managed.</p>	Modification to the BMP required.	<p>A minimal removal of trees is planned for the site in accordance with retaining native vegetation as much as possible.</p> <p>Ground cover within the APZ is to be maintained to 2 Tonnes/hectare and dead palm fronds are to be removed from trees. All trees will be underpruned to at least 2 metres, providing a clear separation from any remnant ground fuel.</p> <p>The Wunambal Gaambera rangers, Outback Spirit staff and APT staff (from the neighbouring campsite) perform joint hazard reduction burning operations annually to reduce the bushfire risk to the Campsites.</p> <p>Additional protection measures above the requirements of the Guidelines for Planning in Bushfire Prone Areas are applied, such as rooftop sprinklers for the protection of eco-tents and the shelter in place building, multiple fire hose reels located around the site and onsite firefighting vehicles.</p> <p>A risk assessment and treatment plan is provided for the site.</p>

Furthermore, a Landscape Management Plan (LMP) should be prepared to identify trees to be removed and ongoing management measures to an APZ standard in accordance with Schedule 1. The LMP would remove ambiguity as to the extent of clearance required and provide an enforceable mechanism. The LMP should additionally clarify who would be responsible for the ongoing management of land both inside and outside the lease area.

DFES Advice			BPP Response / Actions
Issue	Assessment	Action	
Vegetation Classification - Riparian Vegetation	<p>Riparian areas associated with the creek west of the Subject Site cannot be substantiated as Class B Woodland or currently managed to low threat in accordance with AS3959 with the limited information and photographic evidence available.</p> <p>DFES does not consider this riparian vegetation to be open woodland, based on height and crown cover density.</p> <p>If unsubstantiated, the vegetation classification should be revised to apply the worst-case scenario as per AS3959, or the resultant BAL ratings may be inaccurate.</p>	Modification to the BMP is required.	<p>Vegetation on the western side of the creek is classified as Woodland. As can be seen in photos 1d, 1e and 1f of the BMP the tree foliage cover is less than 30% and there is a prominent grassy understorey. There is no vegetation classified as Open Woodland.</p> <p>On the eastern side of the creek vegetation is managed down to the creek bank and a cleared fire break runs along the creekline.</p> <p>No modification to the BMP is required.</p>
Construction to AS3959 Building Standards	<p>Given the BMP recommends compliance to the AS3959 building standards <i>as far as practical</i> it is assumed that the Restaurant/Office building may not be able to be retrofitted to fully comply with BAL-12.5. It is further understood that Eco-tents (whether existing or proposed) are unable to meet these construction standards. Whilst the Staff Accommodation Blocks plans identify Region C Terrain Category 2 cyclonic areas engineering, construction to AS3959 is not stated.</p> <p>It is recommended that the Restaurant/Office and Staff Accommodation be constructed to utilise all of the elements of AS3959 that apply to the appropriate Bushfire Attack Level (BAL). This is consistent with Clause 78E(i) of the LPS Regulations that requires the decision-maker to have regard to the bushfire construction requirements of the Building Code.</p>	Comment	<p>The Restaurant/Office building is an existing building and is not required to be constructed to bushfire standards. However, as this is to be adopted as a shelter in place building BPP recommends that the building be retrofitted to BAL-12.5 (12.5kW/m²) as far as practicable.</p> <p>The potential radiant heat flux level on the Restaurant/Office building, once all APZs are installed will be 5.7kW/m². The building will have a rooftop sprinkler system installed, which is additional to AS3959 construction requirements.</p> <p>As per the DPLH Position Statement: "Tourism land uses in bushfire prone areas" where construction to AS3959 standards is impractical (such as tents and caravans), a risk assessment and treatment plan has been supplied with the BMP. Note also that all tents will have rooftop sprinkler systems installed.</p> <p>The Staff Accommodation Blocks will be constructed to BAL-12.5 (Confirmed by email from Outback Spirit).</p>

2. Policy Measure 6.5 c) Compliance with the Bushfire Protection Criteria

DFES Advice			BPP Response / Actions
Element	Assessment	Action	
Bushfire Protection Criteria	The BMP has not provided a response to the protection criteria contained in the Guidelines and responded to the acceptable solutions contained in Tourism Land Use Position Statement.	Comment	<p>As per the requirements of the DPLH this proposal is assessed against the Position Statement: Tourism land uses in bushfire prone areas.</p> <p>The Position Statement, Tourism Land Uses in Bushfire Prone Areas, introduces a range of measures to ensure bushfire risk is considered appropriately and cognisant of the land use.</p> <p>The Position Statement is effective since November 2019 in the determination of planning applications until a revised policy as part of Stage 3 of the Bushfire Framework Review 2019 is gazetted.</p> <p>The release of the bushfire planning 'Guidelines v1.4', including the revised Tourism Position Statement, is currently under review by the Emergency Services Minister and as such no anticipated release date has been indicated by the Department of Planning, Lands and Heritage. Therefore, the subject proposed development has been assessed under the current bushfire planning requirements.</p>
Location and Siting & Design	<p>A1.1 & A2.1 – not demonstrated The BAL ratings cannot be validated for the outlined in the above table.</p> <p>The ability to obtain relevant vegetation clearing consents from the Wunambal Gaambera Aboriginal Corporation to establish and; thereafter, maintain Schedule 1 standard as contained in the Guidelines should be evidenced.</p>	Modification of the BMP Required.	<p>Vegetation assessment has been validated in comments above.</p> <p>Over the whole of the APZ for the development site the percentage tree canopy would be less than 15%. Tree canopy cover exceeds 15% close to the creek. However, there is minimal understorey vegetation around the tents. Agreement is to be reached with the Wunambal Gaambera Aboriginal Corporation regarding managing site fuel loads to 2 tonnes/ha as stated in BMP.</p> <p>No modification to the BMP required.</p>

DFES Advice			BPP Response / Actions
Element	Assessment	Action	
Vehicular Access	<p>P3 – does not comply The intent of Element 3: Vehicular Access cannot be demonstrated at this location through the acceptable solutions. The significant increase of vulnerable occupants presents an increased risk to people that needs to be mitigated, particularly with consideration of the remoteness of the location and singular access legacy road design passing through an extreme bushfire hazard.</p> <p>DFES notes that the BMP has proposed an on-site refuge as a performance principle-based solution to meet the intent of Element 3. DFES does not accept a refuge as a suitable alternative to two access routes. In particular, the proposed refuge has not demonstrated how the performance principle for Element 3 (P3) has been achieved. P3 states: <i>The internal layout, design and construction of public and private vehicular access and egress in the development to allow emergency and other vehicles to move through it easily and safely at all times.</i></p> <p>The proposed refuge does not address how safe and efficient evacuation of patrons, whilst simultaneously providing a safe operational environment for emergency services, can be achieved.</p>	Comment	<p>As per the requirements of the DPLH this proposal is assessed against the Position Statement: Tourism land uses in bushfire prone areas.</p> <p>The Position Statement, Tourism Land Uses in Bushfire Prone Areas, introduces a range of measures to ensure bushfire risk is considered appropriately and cognisant of the land use.</p> <p>The site is in a remote location with a single vehicular access route and cannot comply with the requirement for a secondary access route.</p> <p>As no alternative exists for a secondary road access to the site, the intent to mitigate this non-compliance with an acceptable solution can be undertaken by reducing the risk to persons by implementing additional risk reduction measures such as an onsite shelter building. A risk assessment and treatment plan accompanies the BMP and the proposed risk treatments are listed in Section 5.5 of the BMP.</p>

<p>Water</p>	<p>P4 – insufficient information The intent of Element 4: Water has not been through the acceptable solutions. P4 states:</p> <p><i>The subdivision, development or land use is provided with a permanent and secure water supply that is sufficient for firefighting purposes.</i></p> <p>The BMP identifies that a minimum 50,000 litre dedicated water supply should be provided. It is unclear whether an assessment has been undertaken as to the reliability of the supply sourced from the rock pool in the creek, or how the minimum 50,000 litre dedicated water supply has been determined. The scale of the proposed development and nomination of rooftop sprinkler systems for the Eco-tents and the Restaurant/Office would appear to warrant a greater capacity. DFES notes that AS2419 requires a minimum 4 hours supply at 10 litres per second that equates to 144,000 litres.</p> <p>The location and capacity of the additional tank(s) and fire hose reels needs to be identified and respond to the available hose lengths and achieve BAL-29 or below. The capacity of the existing dedicated tank should be consistently referenced Plan (stated as both 22,000 and 22,500 litres).</p>	<p>Modification of the BMP required.</p>	<p>As stated in the BMP the water tanks are supplied by a bore to the south of the lease area. Water from the creek is a backup when available.</p> <p>The proponent agrees to install a minimum 144,000 litre capacity water supply for the rooftop sprinklers in addition to the dedicated 50,000 litre firefighting water supply. Future water tanks will be located in areas assessed as having BAL ratings of BAL-29 or lower.</p> <p>Fire hose reels will be installed at or near future buildings and comply with relevant requirements.</p>
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3. Policy Measure 6.6.1 Vulnerable land uses

Issue	Assessment	Action	
Bushfire Emergency Evacuation Plan	<p>The referral has included a <i>'Bushfire Emergency Plan'</i> for the purposes of addressing the policy requirements. Consideration should be given to the Guidelines Section 5.5.2 'Developing a Bushfire Emergency Evacuation Plan'. This contains detail regarding what should be included and will ensure the appropriate content is detailed when finalising the EEP to the satisfaction of the Shire.</p>	Comment	<p>The Bushfire emergency Plan complies with the requirements of the Guidelines.</p>
Refuge Building	<p>An onsite refuge is not a substitute for two access routes which provides safe and efficient access and egress for the community, while simultaneously providing a safe operational environment for emergency services personnel.</p> <p>Please note that the bushfire shelter building should be designed to accommodate all likely occupants including staff and visitors, as well as withstand bushfire attack in the form of wind, smoke, embers, radiant heat and flame contact.</p> <p>Should be endorsed by the Local Emergency Management Committee (LEMC) and registered on the local governments Local Emergency Management Arrangements (LEMA)</p> <p>The applicant should be responsible for maintaining the on-site refuge for compliance with ABCB Design and Construction of Community Bushfire Refuges Handbook (2014) and AS3959 Construction of Buildings in Bushfire Prone Areas to the satisfaction of the local government.</p>	Comment	<p>As per the requirements of the DPLH this proposal is assessed against the Position Statement: Tourism land uses in bushfire prone areas.</p> <p>A risk assessment and treatment plan is provided for the site.</p> <p>Additional protection measures, above the requirements of the Guidelines for Planning in Bushfire Prone Areas are provided, such as rooftop sprinklers for the protection of the shelter in place building, multiple fire hose reels located around the building and onsite firefighting vehicles.</p> <p>The shelter in place building is subject to a potential radiant heat flux level of 5.7kw/m², which is substantially less than the recommended 10kW/m².</p>

Notwithstanding that the BMP has demonstrated that the radiant heat flux will not exceed 10kW/m^2 , the proponent is encouraged to consider the feasibility of constructing the Restaurant/Office to achieve the above refuge standard.

Prior to occupation of the development, a final inspection of the on-site bushfire refuge should be undertaken by a suitably qualified fire engineer with fire risk assessment expertise accredited with Engineers Australia. The Fire Engineer should provide certification to the satisfaction of the local government that works have been completed in accordance with the requirements of the National Construction Code and the ABCB Design and Construction of Community Bushfire Refuges Handbook (2014) and AS3959 Construction of Buildings in Bushfire Prone Areas.

Maintenance Plan should be prepared by a suitably qualified fire engineer with fire risk assessment expertise accredited with Engineers Australia, and must include:

- a) details of maintenance requirements; and
- b) details of annual testing requirements for operational compliance.

The annual testing of the on-site bushfire refuge shall include lodgement of a compliance certification by a suitably qualified fire engineer to the local government two months prior to the commencement of the bushfire season.