Dear Sir/Madam

South Australian Country Fire Service (SA CFS) response to consultation document – “Phase 1 Planning and Design Code in the Outback”

The SA CFS has reviewed this document, which has recently been on public consultation. Our main interest is in respect to the ‘Hazards (Bushfire Protection) Overlay’, as detailed on pages 160 and 161 of the consultation document. Notwithstanding the minimal area that this Overlay is proposed to cover, the SA CFS is eager to ensure that the Overlay policy is sound for when more areas within the scope of the Code are mapped later in 2019 (or remapped in the case of areas within Phases 2 and 3 of the Planning and Design Code roll out).

The SA CFS wishes to provide the following comments in respect to this document –

1. Water supply for firefighting – this is not touched on, and whilst it is understood a future Ministerial Building Standard will cover required levels of water capacity, it is critical that the Planning and Design Code mandates provisions for access to water as part of both building developments and land divisions. Suggested policy wording is attached in Appendix A.

2. In terms of the proposed minimum Asset Protection Zone widths, the SA CFS agrees with the intent of DTS 1.1 within this Overlay, however it is ambiguous in its nature, given that it doesn’t provide variations based on upslope or downslope, nor does it differentiate between vegetation types (e.g. grassland, forest etc). It is also noted that the table does not correlate to Australian Standard AS3959, which is referenced by the National Construction Code as the primary source in determining Bushfire Attack Levels for any particular development. Further, confusion may occur when interpreting this table, as it appears not to refer the applicant to any information about legislation relating to the clearance of native vegetation. An idea for an alternative DTS criteria could be along the lines of –
a. Where the Bushfire Attack Level for the site can be achieved by implementing and maintaining an Asset Protection Zone of not more than 20m in depth (where an Asset Protection Zone of greater than 20m depth is required to achieve a specified BAL rating, calculations shall be based upon AS3959, and removal of native vegetation shall be in line with the relevant native vegetation legislation).

3. In terms of the section entitled ‘Vehicle Access – Roads’, Development Plans and the “Minister’s Code: Undertaking Development in Bushfire Protection Areas” also require private driveways in certain circumstance (when the furthest point of the building from the nearest public road is more than 30m) to meet some of these requirements. Therefore the SA CFS would like this converted and introduced into the Planning and Design Code to ensure safe access for firefighting appliances to sites within a Bushfire Protection Area. Some of the requirements currently listed for private driveways are as follows -
   a. Being connected to an all-weather public road
   b. Being constructed of a formed, all-weather surface
   c. Be constructed away from hazardous vegetation such as overhanging limbs and continuous thick cover of vegetation
   d. Have a minimum formed width of 3m (or 4m in steeper terrain)
   e. Have a gradient of not more than 16 degrees (maximum slope 1:3.5) at any point along the driveway
   f. Allow fire-fighting vehicles to travel in a continuous forward movement by constructing curved roads and driveways with curves that have a minimum external radius of 12.5m
   g. Allow fire-fighting vehicles to safely enter and exit an allotment in a forward direction by incorporating one of –
      i. A loop road around the building, or
      ii. A turning area with a minimum radius of 12.5m, or
      iii. A ‘T’ or ‘Y’ shaped turning area with a minimum formed length of 11m and minimum internal radii of 9.5m (refer to Figure 5)
   h. Incorporate solid, all-weather crossings that are capable of supporting fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes, over any watercourse identified on either a current State Government topographic map (1: 50 000) or otherwise identified as a crossing required to provide appropriate access for fire-fighting vehicles. A current State Government topographic map (1:50 000) can be obtained from the Map Shop www.mapshop.net.au/msnindex.htm
   i. Incorporate passing bays with a minimum formed width of 6m (or 7m in steeper terrain), including the road or driveway width, and a minimum formed length of 17m (refer to Figure 5). The passing bays should be constructed at 200m intervals along the road or driveway. Where it is necessary to provide adequate visibility, such as the nearest point to a public road or other passing bay, passing bays may be required at intervals of less than 200m.

4. In light of the above, the SA CFS also seeks Figure 2.1 to be updated so that it is easier to understand and provides greater clarity around alternative solutions to the standard ‘T’ and ‘Y’ turnaround areas.

5. It is also noted that there is no policy pertaining to the assessment of land divisions within a Bushfire Overlay area – this is important as it is often the land division which dictates the parameters for access, building siting, buffers, vegetation clearance and water supply.
6. Further to the above, it is also noted that there are no bushfire policies relating to land uses catering for vulnerable populations e.g. nursing homes, child care centres etc. It is noted that there is minimal area currently covered by the Bushfire Hazard Overlay in Phase 1 of the Code, however it is anticipated that there will need to be policy relating to such land uses in Phases 2 and 3 of the Code.

7. It is also noted that the provisions in this portion of the Code only relate to dwellings and tourist accommodation. The SA CFS would ideally like this section expanded to include policy in relation to vulnerable facilities that require additional measures in Bushfire Protection Areas, such as Nursing Homes, Hospitals and Child Care Centres.

8. It is noted that in the Local Infrastructure (Airfield) Zone, the Bushfire Hazard Overlay is called up, yet there is no policy to support the types of development that refer to the Overlay (i.e. Air Passenger or Freight Terminal, Airport, Excavation and Filling).

9. Whilst the term ‘Habitable Room’ is now defined (in ‘Part 7 – Administrative Definitions), there is no definition for ‘Habitable Building’, which is the terminology used within this proposed Code.

10. Further to the above, Part 7 – Administrative Definitions details an “Asset Protection Zone” as only relating to native vegetation. The view of the SA CFS is that this should relate to all vegetation.

11. In terms of the ‘Fire Management’ section of the Forestry module, the SA CFS supports the proposed fire break regime, and note that it largely aligns with contemporary Development Plan policy, however DPTI should liaise with ForestrySA and the Department of Environment and Water for any further technical details about fire management in a forestry setting.

12. In respect of the ‘Hazard Management’ section of the Infrastructure and Renewable Energy Facilities module, the SA CFS provides the following comments –
   a. PO 4.2 – it is important also for separation from stands of vegetation to also be achieved for these forms of development
   b. PO 4.3 – clarification is needed about what standards access/fire tracks are to be built too, what size water tanks are required and the level of vegetation clearance required. As well as safety equipment, the SA CFS seeks firefighting equipment be added to the list in this Performance Outcome.

13. In respect to new mapping for the Bushfire Hazard Overlay, we acknowledge the work occurring on this between the SA CFS, DPTI, the LGA and DEW, and therefore have no comments on the mapping proposed in this Phase 1 iteration of the Code, given improved mapping is likely by the end of 2019. It is the understanding of the SA CFS that when the new Overlay mapping is instituted (i.e. in Phases 2 and 3 of the Code implementation), that further amendments will be made to the Code policies.

The SA CFS thanks you for this opportunity to provide comments, and please do not hesitate to contact the undersigned should you wish to seek clarification on any of the above.

Yours Sincerely

JOEL TAGGART
RPIA, B. Urban & Regional Planning (Hons.)
MANAGER – DEVELOPMENT ASSESSMENT SERVICE
South Australian Country Fire Service
**APPENDIX A**

**Access to Water Supply**

<table>
<thead>
<tr>
<th>PO 3.1</th>
<th>DTS 3.1</th>
<th>Comments</th>
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<tr>
<td>Safe and suitable access to nominated bush firefighting water supply is achieved</td>
<td>- The water supply outlet shall be easily accessible and clearly identifiable from the access way that is a distance of no greater than 30 metres from the proposed dwelling. Stand alone tanks shall be identified with the signage ‘WATER FOR FIRE FIGHTING’ and the tank capacity written in 100mm lettering on the side of each tank and repeated so that the sign is visible from all approaches to the tank. The sign shall be in fade-resistant lettering in a colour contrasting with that of the background (ie blue sign with white lettering).</td>
<td>These access requirements are for dwellings where the water supply needs to be fitted with an adaptor for direct access for fire fighting vehicles (where only a domestic fitting is required, these provisions do not apply)</td>
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<td>- Access to the dedicated water supply shall be of all-weather construction, with a minimum formed road surface width of 3 metres.</td>
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<td>- 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</td>
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from the water supply outlet.

- SA CFS appliance inle is rear mounted; therefore the outlet/water storage shall be positioned so that the SA CFS appliance can easily connect to it rear facing.

- A gravity fed water supply outlet may be remotely located from the tank to provide adequate access.

- All non-metal water supply pipes for bushfire fighting purposes (other than flexible connections and hoses for firefighting) shall be buried below ground to a minimum depth of 300mm with no non-metal parts above ground level.

- All water supply pipes for draughting purposes shall be capable of withstanding the required pressure for draughting.

- A remote water supply outlet should be gravity fed, where this is not possible the following dimensions shall be considered as the maximum capability in any hydraulic design for draughting purposes:

  The dedicated water supply outlet for draughting purposes shall not exceed 5 metre maximum
vertical lift (calculated on the height of the hardstand surface to the lowest point of the storage) and no greater than 6 metre horizontal distance.

The suction outlet pipework from the tank shall be fitted with an inline non-return valve of nominal internal diameter not less than that of the suction pipe and be located from the lowest point of extract from the tank.