



P.O. Box 656

Kalamunda

W.A. 6926

<http://nrpg.org.au/>

<https://www.facebook.com/KalamundaNRPG>

<https://www.facebook.com/nrpg.bushcare>

**Nature Reserves Preservation Group  
of Kalamunda, Inc.**

17 July 2023

**TO:** DPLH [bushfirereview@dplh.wa.gov.au](mailto:bushfirereview@dplh.wa.gov.au)

**SUBJECT: NRPG Comment on Draft State Policy 3.7 - Bushfire and Planning for Bushfire Guidelines 2023**

This submission is made on behalf of the Nature Reserves Preservation Group of Kalamunda (NRPG), a non-profit community organisation which has worked for 30 years to preserve the natural areas in Kalamunda and surrounds. As such we recognise that our natural areas in the metro and regional areas in the southwest of WA, including our Native Forests, are incredibly biodiverse and globally unique, and they have and are being subjected to major threats to their survival from extensive clearing, logging, mining, prescribed burning and Climate Change.

Our primary focus in this submission on bushfire risk, is in regard to the topic of prescribed burning and the 'fire-weed cycle'. Sections not relevant to this have been excluded from NRPG comment.

**Comments on SPP 3.7 are as follows:**

***3.0 Bushfire in Western Australia***

NRPG acknowledges that bushfires are an inherent part of the Australia environment, but submits that this has significantly increased in frequency and extent since "settlement" due to deliberate burning with the intent to reduce fuel load and therefore fire risk. In recent decades extensive 'prescribed burning' frequency has dramatically increased, resulting in numerous hot damaging fires over wide areas, and raising serious questions about whether this is a sustainable practice, including in the face of a drying climate in SW WA.

NRPG is aware of new research and evidence (see refs \*\*) which shows that the practice of 'prescribed burning' is increasing forest fire flammability, and therefore risk. This research has been presented at the:

- "Prescribed Burning Conference" mid 2019 (Chaired by E/Prof Carmen Lawrence at UWA), at the Denmark Fire Forum,
- "The Nature of Fire and Prescribed Burns on the South Coast" Conference (Denmark Chamber of Commerce, supported by the Denmark Fire Study Group),
- "Fire & Biodiversity Forum WA" in mid 2021 (Convened by Dr Carole Peters)
- "Fire & Air Forum" 5 May 2023 (Convened by Dr Carole Peters)
- Also see: <https://www.fabwa.org.au/publications>

The mechanism by which the research shows this occurs is that, after a fire, there is rapid dense regrowth of the understorey in the first decade approximately, which not only increases fuel load, but also elevates it above the ground where it is able to burn more rapidly from increased airflow, resulting in flame height more likely to reach the tree canopy. Conversely, in forests which have been left **unburned for over approximately 25 years**, the understorey **naturally 'thins'** and becomes **low and 'open'** between it and the canopy above. These characteristics mean that if a wildfire does start, the fuel load is small, at low elevation, does not spread as fast and is less likely to reach the mature tree canopy. The research indicates also that "although climate change has made forests of all ages more likely to burn, mature forests were 3 times less likely to burn than recently (5-7 years) burned forests, even in the worst years".

The research indicates that unfortunately the majority of prescribed burns are being done within a decade window of time, which is also the period of highest regrowth, and flammability, and therefore at greatest risk of hot, damaging outcomes. Further the windows of opportunity to perform the burns, are becoming more limited.

However, if we can revert our bushland and forests back to a 'mature' long-unburned state, it would be possible to dramatically reduce or even eliminate the need for extensive intentional burning.

Interestingly, the research also shows that approximately 95% of all forest fires are caused by humans, and the remainder are 'wildfires' caused by Nature. Given this, it has been proposed that if we stop intentional burning and shift our resources instead into much greater implementation of modern rapid detection and response technologies to wildfires, it may be possible to significantly reduce the frequency and need for prescribed burns, and therefore reduce the hazards to human health, property and our natural areas, for long term sustainability.

With evidence presented at the forums noted above, expert peer-reviewed scientists have called for an independent Review of Prescribed Burning Policy and Practice.

#### References\*\*:

- "Self-thinning forest understoreys reduce wildfire risk, even in a warming climate" Zylstra, P. J.; Bradshaw, S. D.; Lindenmayer, D. B. Environmental Research Letters (2022), <https://doi.org/10.1088/1748-9326/ac5c10> (Attached)
- "Wildfire risk management across diverse bioregions in a changing climate" Tristan Campbell, S. Don Bradshaw, Kingsley W. Dixon & Philip Zylstra 13:1, 2405-2424, DOI: 10.1080/19475705.2022.2119891 <https://doi.org/10.1080/19475705.2022.2119891> (Attached)

#### *7.4 Outcomes based approach*

i) This sections states "...policy recognises that the use of the acceptable solutions, identified within the Guidelines, is preferred as these standards have been tried and tested across Australia, and form an accepted pathway for compliance."

However, in reference to the comment made in section 3.0, these "tried and tested" standards are coming under question, and the potential solutions referenced in 3 above must be considered.

## **9 Precautionary Principle**

This section states (and NRPG agrees) that “Where a proposal does not satisfy the bushfire protection criteria through compliance with the acceptable solutions and/or an outcomes-based approach; is not supported by science, evidence or knowledge; and an understanding of the consequences have not been made available by the proponent to the decision-maker, the proposal should not be supported, based on the application of the precautionary principle.”

The present fire hazard reduction methods which are implemented frequently and extensively on our bushland, forests and other natural areas have resulted in numerous destructive fires and degradation to these areas. NRPG urges that the research and evidence referenced in 3 above be considered and implemented as a more sustainable method of addressing fire risk management.

### **SPP 3.7 Guidelines.**

#### **2.7 Biodiversity and environment – ‘balance’.**

NRPG urges that “Bushfire management Plans” should also consider the learnings from the research referenced in 3 above.

#### **3.1 ‘Guiding Principles’**

##### *“Early consideration.”*

As this is a planning document, NRPG urges that the need to plan to include early detection, and rapid response technologies and techniques, together with incorporation of the latest research on the topic, presented in 3 above.

##### *‘Intergenerational equity and climate change’.*

The changing climate is further cause to apply the latest research (ref 3 above) on the causes of high fire risk including that the drying climate in southwest WA and more frequent burning is resulting in higher fire risk, than long-unburned forests, ie. 25 years plus.

### **Fig. 3 Bushfire management Plan**

NRPG suggests that this incorporates the latest research learnings referenced in section 3 above.

#### **p. 19 “Environmental Considerations”**

NRPG urges that new developments not be allowed in environmentally significant areas because ultimately safety of life and assets will put pressure on clearing of adjacent natural areas, and transit areas. Given the extent of clearing in our natural areas and metro areas so far, we must minimize further pressure to do so.

#### **p.52, 10.9 DBCA**

The current failure of prescribed burning techniques to provide a long-term minimal fire-risk environment, according to the new research and evidence referenced in section 3 above, highlights a need to abolish burns ‘targets’ and instead focus on the opportunities provided by the new research, to achieve a more sustainable future.

**p.57 A.1.1** *“Understanding size and intensity of bushfire”.*

The recent research referenced in section 3 above, should be considered in the understanding, and included and applied in the methodology.

Steve Gates

President, Nature Reserves Preservation Group

[smgates@tpg.com.au](mailto:smgates@tpg.com.au)

0400-870-887

Attachments:

- “Self-thinning forest understoreys reduce wildfire risk, even in a warming climate” Zylstra, P. J.; Bradshaw, S. D.; Lindenmayer, D. B. Environmental Research Letters (2022), <https://doi.org/10.1088/1748-9326/ac5c10>
- “Wildfire risk management across diverse bioregions in a changing climate” Tristan Campbell, S. Don Bradshaw, Kingsley W. Dixon & Philip Zylstra 13:1, 2405-2424, DOI: 10.1080/19475705.2022.2119891 <https://doi.org/10.1080/19475705.2022.2119891>