

Submission in support of petition for a review of Prescribed Burning practices in the south-west of Western Australia.

Your petitioners request that the Standing Committee on Environment and Public Affairs conduct a formal inquiry into the harm caused by current prescribed burning as practised in the south-west of Western Australia in its increasingly hot and dry climate. Respected members of the scientific community and many other Western Australians agree on the urgent need for such a review. It would provide a forum for public discussion on prescribed burning, which is a matter of great community interest, and allow interested persons and groups to bring their concerns to the attention of the Legislative Council as a matter of urgency.

1. Removing the prescribed burning target for the Forest Management Plan area

Having an annual target is unhelpful and may be counter-productive. This is the finding of an expert panel set up by then Prime Minister John Howard (Ellis, S, Kanowski, P & Whelan, R (2004), *National Inquiry on Bushfire Mitigation and Management*, Commonwealth of Australia, Canberra). The target tells us little about whether lives, property and biodiversity are protected, and encourages land managers to take risks and burn large areas remote from people and property rather than targetting areas most in need of protection.

As the expert panel found, we need to develop ways of assessing the effectiveness of fuel-reduction programs in terms of the resultant degree of reduction in risk.

2. Encouraging research into cost efficiency and effectiveness of broad-scale prescribed burning

We do not know the full costs of broad-scale prescribed burning in WA. There are not only the actual costs of planning and conducting them, and compensating for financial losses incurred as a result of escapes. Current prescribed burning imposes huge costs on the health system. Recent research shows that smoke from prescribed burns results in significant increases in hospital admissions and emergency department and doctors' attendances (Borchers Arriagada, N, Palmer, AJ, Bowman, DMJS and Johnston, FJ (2020). Exceedances of national air quality standards for particulate matter in Western Australia: sources and health-related impacts. *Medical Journal of Australia* <https://doi.org/10.5694/mja2.50547>). In WA more people die from this smoke than from smoke from wildfires or from wildfires themselves.

Prescribed burns destroy buds and blossom and make forest and bush unfit for bees for five years or more. They impose a huge cost on the valuable honey industry and are regarded as the biggest threat to its viability. Their smoke contaminates grapes making them unfit for wine production. Burnt forest and bush are unattractive for visitors and recreationists, who may choose to go elsewhere. These costs need to be quantified and taken into account in decisions about prescribed burning.

There is a lack of transparency surrounding prescribed burns conducted by the Department of Biodiversity, Conservation and Land Management (DBCA). For example, there is no formal consultation process in either the design of the burn program, or the planning of individual burns. The plans are only available for viewing during office hours at DBCA offices, and there is no independent assessment of burns. With a single agency responsible for planning the burns including writing the success criteria, doing the burns and subsequently judging their success, there is an obvious failure of oversight.

We need to know whether selective, risk assessed, strategic mitigation activities close to infrastructure would more effectively protect people and property and WA's biodiversity and at less cost than current prescribed burning.

3. Supporting research and implementation of early detection and at-source suppression of bush fire ignitions

In WA, 58% of bushfires are caused by people, of which a large majority (40% of the total) is arson. This compares with 25% started by lightning, and 17% by other or unknown causes (which could also involve people).

We need to know if we can reduce avoidable ignitions through improved education and increased detection of and penalties for arson.

We have the remote sensing technology to detect ignitions and fires and should conduct research into what best to use and how to implement it without delay.

In one of the rare independent audits of prescribed burns, the Auditor General of Western Australia found that at the 2003 fire at Mount Cooke was made much more serious (18,000 compared with less than 100 hectares) by a delay in accessing fire-fighting machinery.

We need to know whether having appropriate fire-fighting aircraft strategically stationed across the South West throughout the fire season would reduce the number, intensity and area of wildfires .

We need to research rapid detection and at-source suppression to learn whether they would reduce the severity and area burnt in wildfires.

4. Ending broad-scale prescribed burning in the conservation estate,

The head of CALM, the late Keiran McNamara, told a federal inquiry that WA's national parks are burnt more often than State forest managed for wood production. We need to know if this is still true, and if so, why and how it can be ended.

Between 1999 and 2018, the number of fauna species on WA's threatened species list increased from 19 to 42 and the number of flora species increased from 79 to 113. Once wetter ecosystems of limited distribution now ignite, and prescribed burning is hastening their destruction. We need to know if current prescribed burning has contributed to the worrying increases in the numbers of threatened species and ecosystems..

Prescribed burning in the conservation estate should focus on ecological objectives to conserve and protect the unique flora and fauna within these refuges for biodiversity. For this to be achieved, we need to know the frequency and intensity of fire that will enable our native species to regenerate, reproduce and thrive.

5. Protecting long unburnt country

Current prescribed burning aims to keep 45 per cent of the landscape managed by DBCA in the south-west forest region with a 'fuel age' of less than six years and very little long unburnt (unburnt for more than 20 years). Yet in order to survive, there are species of flora and fauna that need vegetation unburnt for 20 years or more (for example, western ringtail possum, *Pseudocheirus occidentalis*).

Current research suggests that long-unburnt vegetation (more than 20 years) may be less flammable than vegetation with a fuel age of 6 to 20 years (Zylstra, P.J. (2018) Flammability dynamics in the Australian Alps. *Austral Ecology* 43, 578-591). This hypothesis needs urgent comprehensive investigation.

We need research into more accurate indicators of flammability than the single measure of 'fuel age' and the related assumption that the likelihood of fire increases with increasing time since the last fire.