WILDFLOWER SOCIETY OF WESTERN AUSTRALIA (Inc)

Position Paper: Prescribed burning and the sustainable management of ecosystems in Western Australia.

Background

This position paper has been developed by a Wildflower Society of Western Australia (Inc) (Society) Working Group established at the Society's State Council meeting in February 2020, which resolved:

> "*That the Society write a Position Paper on Planned Burning in the sustainable management of natural ecosystems in WA*."

This Position Paper provides the Society's considered view on prescribed burning and its impacts on sustainable management of natural vegetation in Western Australia.

Scope

This Position Paper is relevant to south-western Western Australia including the Swan Coastal Plain, Wheatbelt, Great Southern, Goldfields and adjacent regions. Western Australia's arid lands and the Kimberley are not considered here, as these areas have very different fire ecologies, issues and challenges.

All public and private lands within the area of interest are in scope, but the Position Paper focuses on public lands managed by government agencies.

The Society's Position

1. The Society recognises that fire is an integral part of the landscape and environment of Western Australia, has been present, at varying frequencies, intensities, seasons and extent for a very long time, and is an important tool for managing the incidence, extent and severity of wildfire and the health and integrity of natural ecosystems.

2. The Society understands that many plants, animals and ecological communities in Western Australia cansurvive fire, in some cases thriving in the years immediately following fire, but also that many species are fire-sensitive to varying degrees and must be protected from fires that are too hot, too frequent, and/or too extensive.

3. The Society believes that a careful balance must be struck between protection of people, their communities, assets and property from wildfires on the one hand, and protection of the natural environment on the other.

4. The Society recognises that Aboriginal people used fire for tens of thousands of years, with profound impacts, for cultural reasons and to manage their environment, and that fire ecology in many areas has changed substantially since these practices were curtailed following European colonisation.

The Society is concerned about the following current aspects of fire management in Western Australia.

1. Prescribed burning as currently used in south-western Western Australia is too blunt an instrument for the management of wildfire and protection of human and environmental assets.

2. Mandated annual targets that set the total area or proportion of areas to be burnt through prescribed burning, coupled with funding limitations for land and fire management agencies, create incentives that result in prescribed burning being over-used, poorly targeted, and inadequately managed.

3. Current ignition patterns often result in very intense prescribed burns that may compromise important biodiversity values over short, medium and long terms.

4. Insufficient research has been conducted in Western Australia to ensure that current prescribed burning regimes are a net positive rather than a net negative for natural ecosystems.

5. Some ecosystems have a feedback between prescribed burning and wildfire in which prescribed burning increases the overall flammability of the system, while other ecosystems may have the opposite feedback (with prescribed burning reducing the flammability of the system). The degree to which different ecosystems in Western Australia have positive or negative feedbacks is currently poorly understood.

6. Insufficient research has been conducted in Western Australia on interactions between prescribed burning and climate change, including drought, resulting in compounding damage from these stressors to natural ecosystems. Recruitment failures of fire-affected species are likely if prescribed burning occurs during or immediately before serious drought, and this needs to be accounted for during fire planning.

7. Insufficient research has been conducted in Western Australia on ways to reduce weed invasion following prescribed burning and wildfire.

8. While some areas are burnt too frequently, other areas (particularly small and isolated nature reserves in the Wheatbelt) are burnt too infrequently, leading to senescent vegetation and loss of diversity.

9. Insufficient resources are currently made available for rapid-response, at-source fire suppression, particularly in remote areas. This should be used as the primary strategy for managing wildfire throughout the south-west of Western Australia, with prescribed burning a secondary strategy where appropriate. Every large fire starts as a small fire, and resources should be adequate to detect and respond to these small fires before they become unmanageable.

10. Insufficient resources are currently made available for monitoring and maintaining reliable statistics on prescribed burning, including patch size, distance between patches of burnt and unburnt vegetation and fire intensity in burnt patches. 'Area burnt' is a poor indicator of the impact of prescribed burning.

The Society recommends that:

1. research into positive and negative feedbacks of fire in Western Australian natural ecosystems be undertaken as a matter of urgency;

2. mandated targets for annual areas of prescribed burning be replaced by finer-scale targets, incorporating the protection of both assets and other infrastructure, and biodiversity;

3. all targets for prescribed burning take into account long-term seasonal weather forecasts, with prescribed burning not undertaken during or immediately before prolonged and serious droughts;

4. research into the impacts on biodiversity of intense prescribed burns be urgently undertaken;

5. adequate resources be made available to build an effective rapid-response fire suppression capability throughout Western Australia (including in remote areas);

6. prescribed burning be used as a secondary rather than a primary management tool for controlling wildfires;

7. adequate resources be made available for collecting better data from every prescribed burn, as a basis for understanding changes in ecosystem health;

8. Indigenous communities be closely involved in co-design and co-implementation of fire management policies and practices in environments where they have maintained or can restore close links with country;

9. until these conditions are met, prescribed burning be scaled back in areas not immediately adjacent to sensitive built and natural assets, as a precautionary measure;

10. a formal, independent, science-based review of the prescribed burning regime currently applied in south-west Western Australia is urgently needed.

Endorsed by the Society's Management Committee at its meeting on 19 January 2022.