

Australian Fire Danger Rating System

What is the Australian Fire Danger Rating System?

The Australian Fire Danger Rating System (AFDRS) is a new, simplified and nationally consistent Fire Danger Rating System. It is launching across Australia on 1 September 2022 and will forecast fire danger using the latest science, bushfire knowledge and a better reflection of Australian fuel types than ever before. This will enhance the accuracy behind fire danger predictions and improve how fire danger is communicated.

What are Fire Danger Ratings?

Fire Danger Ratings (FDR) describe the potential level of danger should a bushfire start. They provide important information so you can take action to protect yourself and others from the potentially dangerous impacts of a bushfire. Ratings are calculated using a combination of weather forecasting and vegetation information. They do not indicate the chance of a fire occurring.

Why are we changing from the current system to the AFDRS?

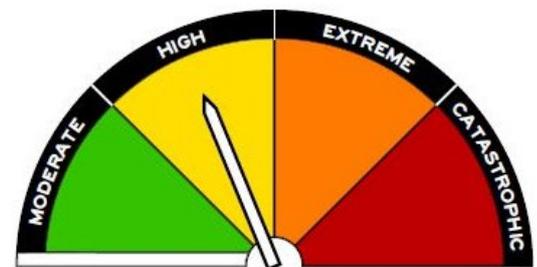
The science underpinning the current Fire Danger Rating System is more than 60 years old. It applies only two fire behaviour models, despite these fuels only applying to one-third of WA. It also does not account for other fuel values such as fuel load distribution, condition and continuity, which can significantly influence fire behaviour. The change to the AFDRS was informed by one of Australia's largest social research projects which found that most Australians do not understand the current system and would prefer a simpler, action-oriented set of FDR.

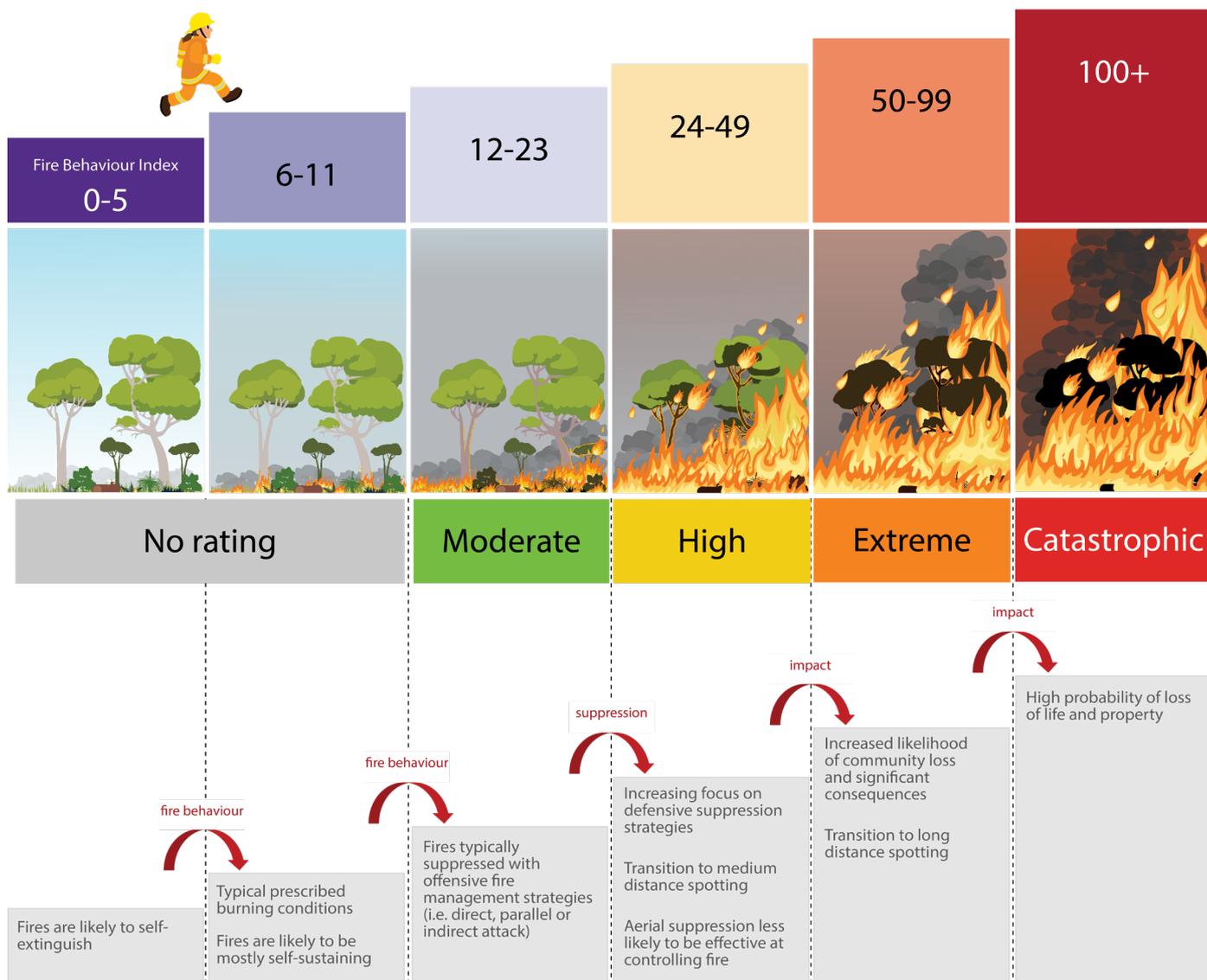
What are the benefits of the AFDRS?

Currently, there are inconsistencies in how jurisdictions determine and communicate FDR. By implementing a national system, wherever people are in Australia they will see and access consistent fire danger advice, maximising their ability to appropriately respond to conditions. The AFDRS considers 22 different fuel types and applies eight of the most contemporary fire behaviour models across the country. This will see us move to a Fire Behaviour Index (FBI) that provides a much more accurate scale of potential fire behaviour based on weather conditions and the applicable model. This enables emergency services to be better prepared, make improved decisions and provide better advice to the community.

Its design is simpler, with four levels and clear messages to encourage people to take action. It also introduces 'No Rating' (white bar under Moderate) for days when conditions present minimal fire risk. This does not mean that fires cannot start, but that they are not expected to act in a dangerous or life-threatening way. The new rating names and key messages are:

- **Moderate:** Plan and prepare.
- **High:** Be ready to act.
- **Extreme:** Take action now to protect your life and property.
- **Catastrophic:** For your survival, leave bushfire risk areas.





Infographic 1: Fire Behaviour Index based on transitions

Training

Online AFDRS training products are now available and include a 30-minute AFDRS introduction training package. Volunteers registered with DFES are encouraged to complete the training via [eAcademy](#). Anyone without a DFES login can complete it via the [AFAC Learning Management System](#).

Roadside Signage

Roadside FDR signs, which have been a long-standing public-facing tool to communicate daily FDR, will be replaced as part of the AFDRS implementation. DFES has secured funding from the Commonwealth Government to coordinate the procurement of replacement signage for local governments. Due to national demand and delays in procurement, AFDRS signage will not be installed prior to 1 September 2022. DFES is aiming for signage to be allocated by late 2022. In the interim, DFES has asked local governments to commence removing analogue signs, covering digital signs and utilising other methods of communicating fire danger.



Legislation

The *Bush Fires Amendment Act 2022* (the Act) will come into operation on 1 September 2022, the date agreed by proclamation. The package of amendment regulations, including the *Bush Fires Amendment Act 2022*, *Bush Fires Regulations Amendment Regulations 2022* and *Conservation and Land Management Amendment Regulations (No. 3) 2022*, will also come into effect on 1 September 2022. Both the Act and the regulations are aligned to the AFDRS. The updated legislation and subsidiary legislation will be accessible at www.legislation.wa.gov.au.

Communications

A range of communications have been issued via the DFES Volunteer Hub, Volunteer Update and Intranet to keep volunteers informed. Print and digital resources are being prepared to equip Brigades, Groups and Units (BGU) with tools to educate their communities about the changes. DFES and local government representatives across the State were supplied with printed materials in July to distribute to staff, BGUs and communities and will receive further assets to allocate from 1 September 2022. This is part of an extensive engagement campaign that volunteers will play a vital role in, to help communicate this nationally important project to WA communities.

Community awareness campaign

A national awareness campaign will launch with the new system to help embed understanding of the new levels and actions within communities. This will include assets across TV, radio, press, social and digital media, with a focus on assets in high bushfire risk areas. Public information sources including Emergency WA and the Bureau of Meteorology (BoM) website have been updated to display the new ratings and these services will be operational from 1 September. Emergency WA will include new iconography, the new Fire Weather Districts and new display features to make it clearer and easier for the community to interpret their local FDR. AFDRS information and community resources will also be available from the [DFES website](#) and [My Bushfire Plan](#).

Fire Weather Districts

The AFDRS project presented an opportunity for WA to review the [current Fire Weather Districts](#) to improve how FDR are communicated. The review commenced in January 2021 facilitated by DFES and BoM, involving agency staff and key stakeholders. Following consultation across each region and detailed analysis work, the revised Fire Weather Districts have been finalised and will be introduced with the release of the AFDRS. The new Fire Weather Districts can be accessed from the [interactive map viewer](#).

Effective from 1 September 2022 the new AFDRS model will be implemented. BoM will cease using the old model and only forecast using the new AFDRS. Given the volume of data associated with forecasting, there will not be an overlap period and the old model will no longer be available.

Want to know more or stay in touch?

To learn more, visit the [Volunteer Hub](#) or [DFES website](#). For information about the AFDRS WA implementation project, email AFDRS@dfes.wa.gov.au or [subscribe to our AFDRS Newsletter](#).

